

# **E-COMMERCE DATA REPORT (ESTABLISHMENT SURVEY)**

**- Ten Countries in Comparison -**

Bonn, 2000-05-16



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# 1 Use of information technologies relevant to e-commerce

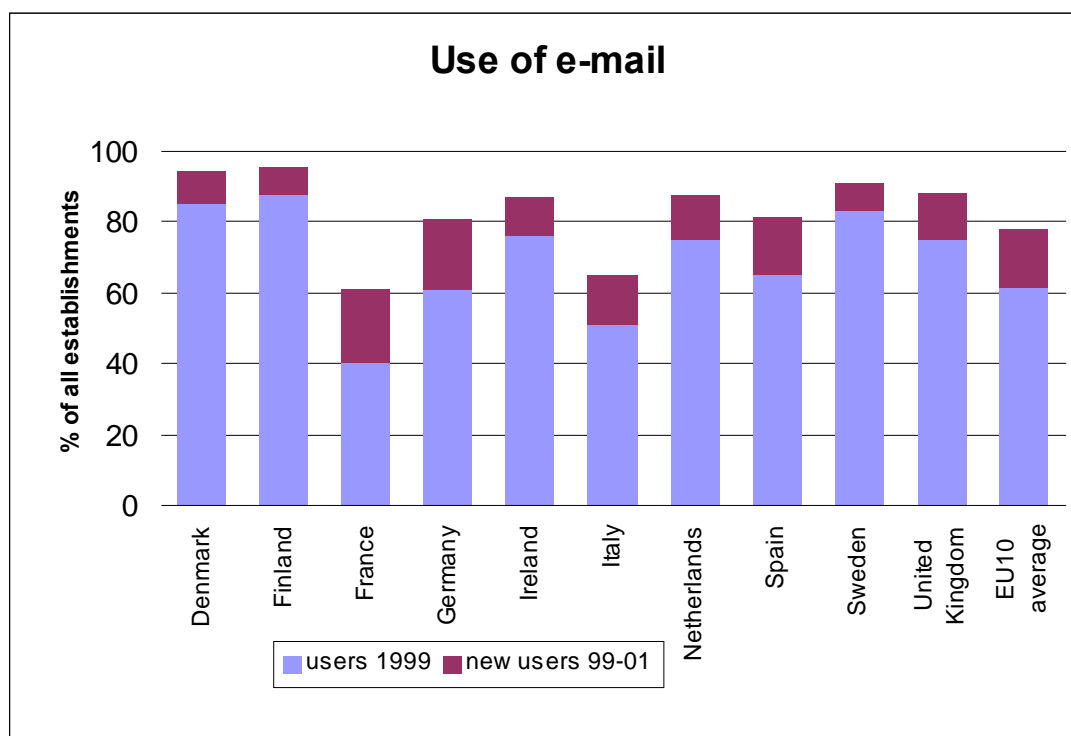
## 1.1 E-mail

TABLE 1: USE OF E-MAIL (IN %)

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
Denmark	85.2	8.9	94.1	2	2
Finland	87.6	7.7	95.3	1	1
France	39.9	21.3	61.2	10	10
Germany	61.2	19.5	80.7	8	8
Ireland	76.0	11.0	87.0	4	6
Italy	50.8	14.1	64.9	9	9
Netherlands	75.0	12.3	87.3	6	5
Spain	65.1	16.0	81.1	7	7
Sweden	83.2	7.9	91.1	3	3
U.K.	75.3	12.6	87.9	5	4
EUR10	61.7	16.1	77.8		

Base: All establishments (n = 4,158), weighted

Today (1999) 62% of establishments in Europe already use e-mail. In 2001 this will have increased to more than 78%. Current user shares vary between around 40% in France and 88% in Finland. Apart from Finland and Denmark, Sweden also belongs to the top group. A second group is formed by Ireland, Netherlands and the United Kingdom. Germany with its below average 61% takes up only 8<sup>th</sup> position in the 10 countries surveyed. By 2001 nothing will have changed about this position even if almost 20% of establishments will have become new users. France shows an even higher growth rate but this will do only little to reduce its laggard status.



### 1.1.1 Employees' access to e-mail

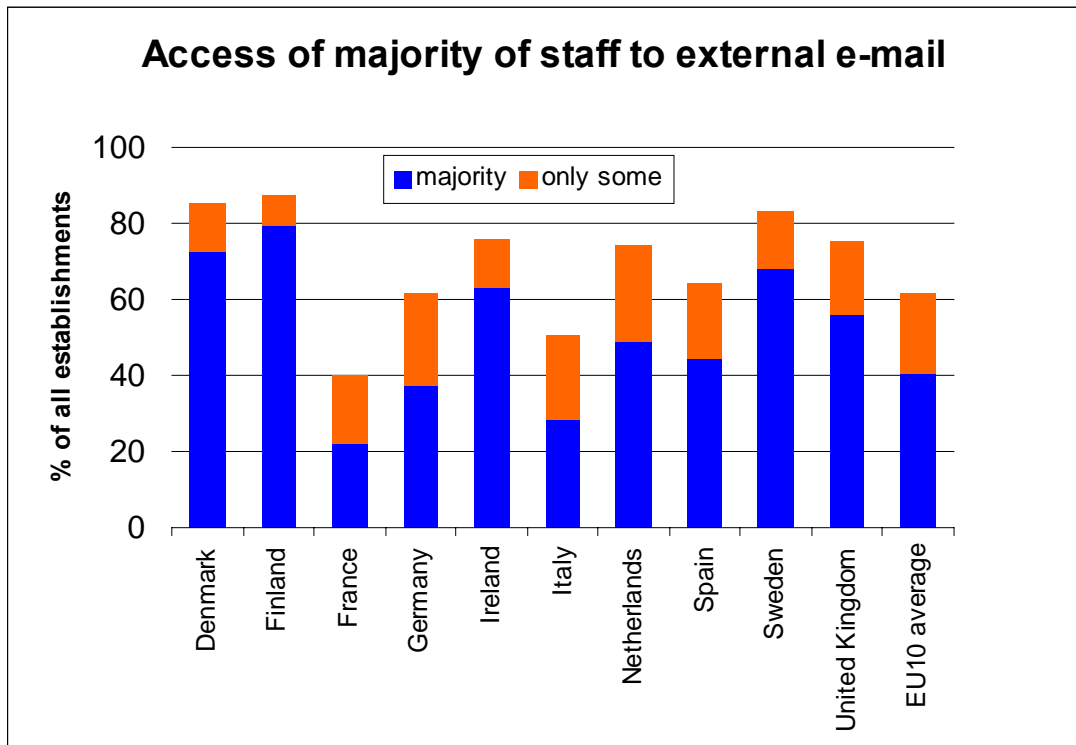
TABLE 2: EMPLOYEES' ACCESS TO EXTERNAL E-MAIL (IN %)

	(1) Majority has access	(2) Only a minority has access	ranking re (1)	(1) in % of all user establ.
<b>Denmark</b>	72.8	12.4	2	85.4
<b>Finland</b>	79.7	7.9	1	91.0
<b>France</b>	21.9	18.0	10	54.9
<b>Germany</b>	37.5	23.7	8	61.3
<b>Ireland</b>	63.3	12.7	4	83.3
<b>Italy</b>	28.2	22.6	9	55.5
<b>Netherlands</b>	49.0	26.0	6	65.3
<b>Spain</b>	44.2	20.9	7	67.9
<b>Sweden</b>	67.7	15.5	3	81.4
<b>U.K.</b>	56.0	19.3	5	74.4
<b>EUR10</b>	40.6	21.1		65.8

Base: All establishments (n = 4,158), weighted

41% of EUR10 establishments allow the majority of their (office) staff to send and receive external e-mail. This corresponds to 66% of all establishments which use e-mail. In Germany this latter value is only 61% while the Scandinavian countries reach levels of 91%

(Finland), 85% (Denmark) and 81% (Sweden). This divergence is obviously due to marked differences in business culture. While in many German, French and Italian establishments behaviour regarding access to external e-mail (in particular the Internet) is rather restrictive (caused possibly by a high level of distrust towards their employees), the vast majority of Scandinavian (and also Irish) establishments follow a more open policy. As experience with e-mail is in many cases the first contact with the potential of online interaction and therefore also strongly influences openness and willingness to use electronic media for product purchase, this situation leads to disadvantages in Germany regarding the potential for E-Commerce.



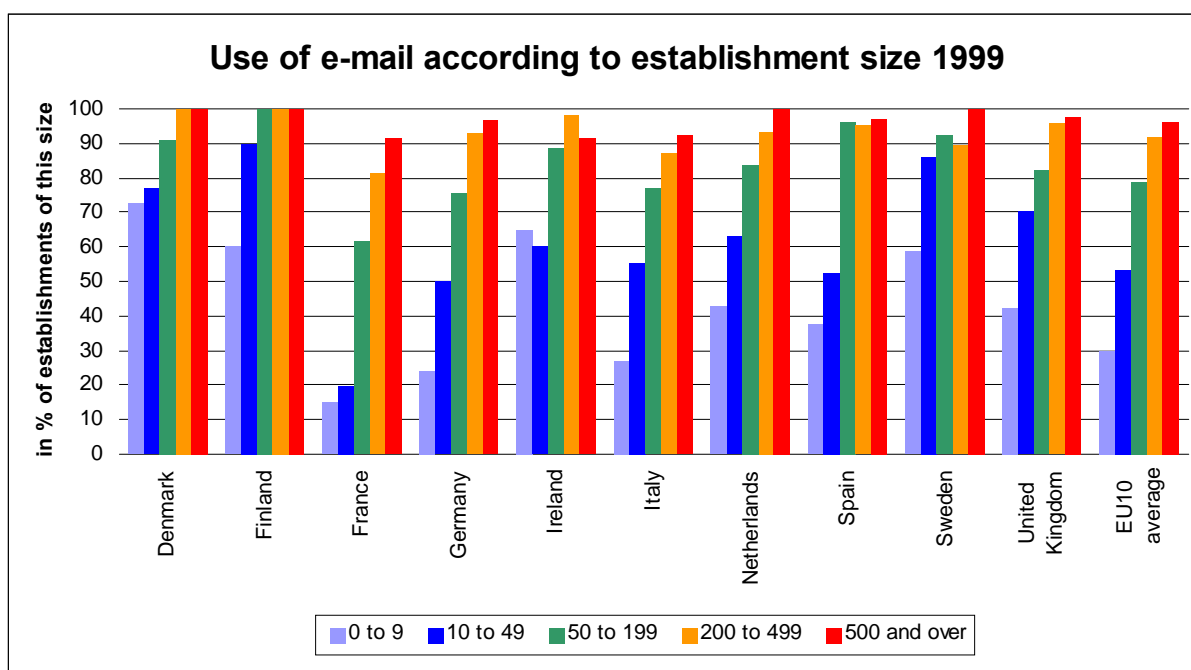
### 1.1.2 Differentiation according to establishment size

Not surprisingly the likelihood of an establishment using e-mail increases with its number of employees. Almost universally workplaces with more than 200 employees have e-mail access whereas in establishments with less than 10 employees (in Germany) only a quarter do. The table highlights that the differences between the countries are mainly due to the relative proportions of the small establishments.

TABLE 3: E-MAIL USE ACCORDING TO ESTABLISHMENT SIZE (IN %)

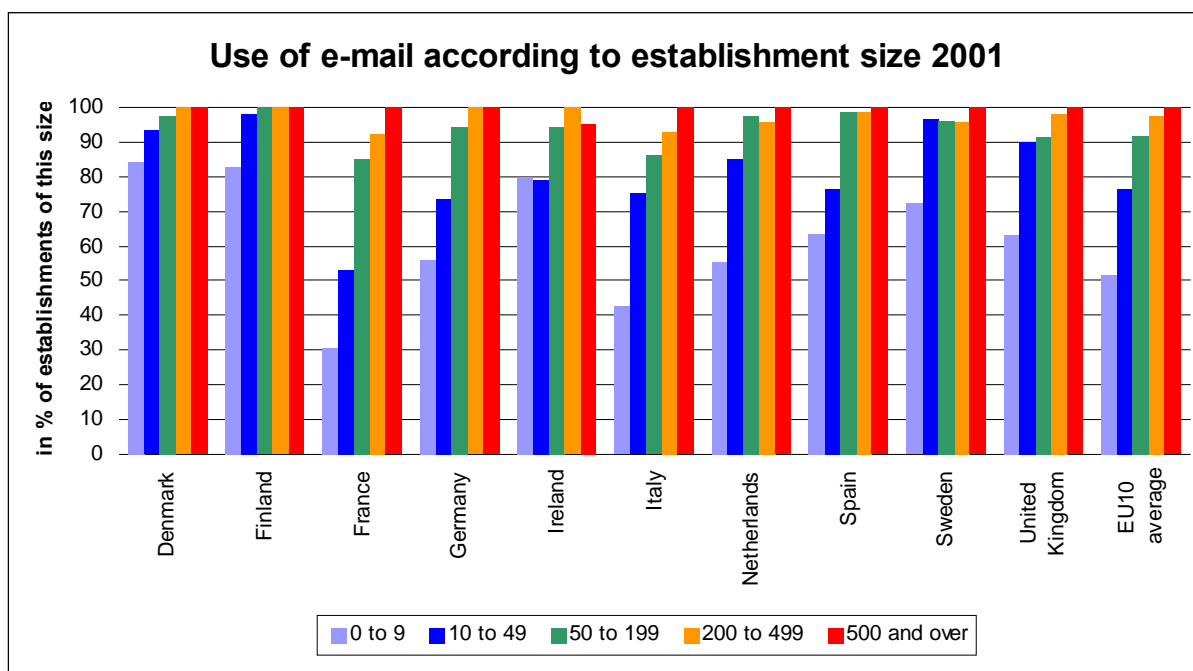
	0 to 9		10 to 49		50 to 199		200 to 499		500 and more	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	72.5	11.7	76.8	16.3	90.7	6.7	100.0	0.0	100.0	0.0
<b>Finland</b>	59.9	22.7	89.7	8.4	100.0	0.0	100.0	0.0	100.0	0.0
<b>France</b>	14.7	16.1	19.8	33.3	61.7	23.4	81.1	11.1	91.4	8.6
<b>Germany</b>	23.9	32.2	50.2	23.7	75.6	18.8	93.0	7.0	96.6	3.4
<b>Ireland</b>	64.9	15.2	60.3	18.7	88.6	5.8	98.1	1.9	91.5	3.6
<b>Italy</b>	27.1	15.6	55.3	19.6	77.0	9.1	87.2	5.7	92.4	7.6
<b>Netherlands</b>	42.6	12.8	63.0	22.2	83.8	13.8	93.2	2.7	100.0	0.0
<b>Spain</b>	37.5	26.0	52.6	24.1	96.0	2.6	95.1	3.6	97.3	2.7
<b>Sweden</b>	58.6	13.5	85.9	10.9	92.5	3.8	89.6	6.3	100.0	0.0
<b>U.K.</b>	42.2	20.9	70.2	19.9	82.2	9.2	95.5	2.8	97.7	2.3
<b>EUR10</b>	29.9	21.6	53.5	23.1	78.8	13.3	91.9	5.5	96.3	3.6

Base: All establishments (n = 4,158), weighted



While in countries such as Finland and Denmark in 2 years time a personal e-mail account will be almost as common as a telephone connection, it will still take a number of years before full provision is achieved in those small establishments of up to 50 employees in the lag-gard countries France, Italy and Germany. Less than half of all small establishments of up to

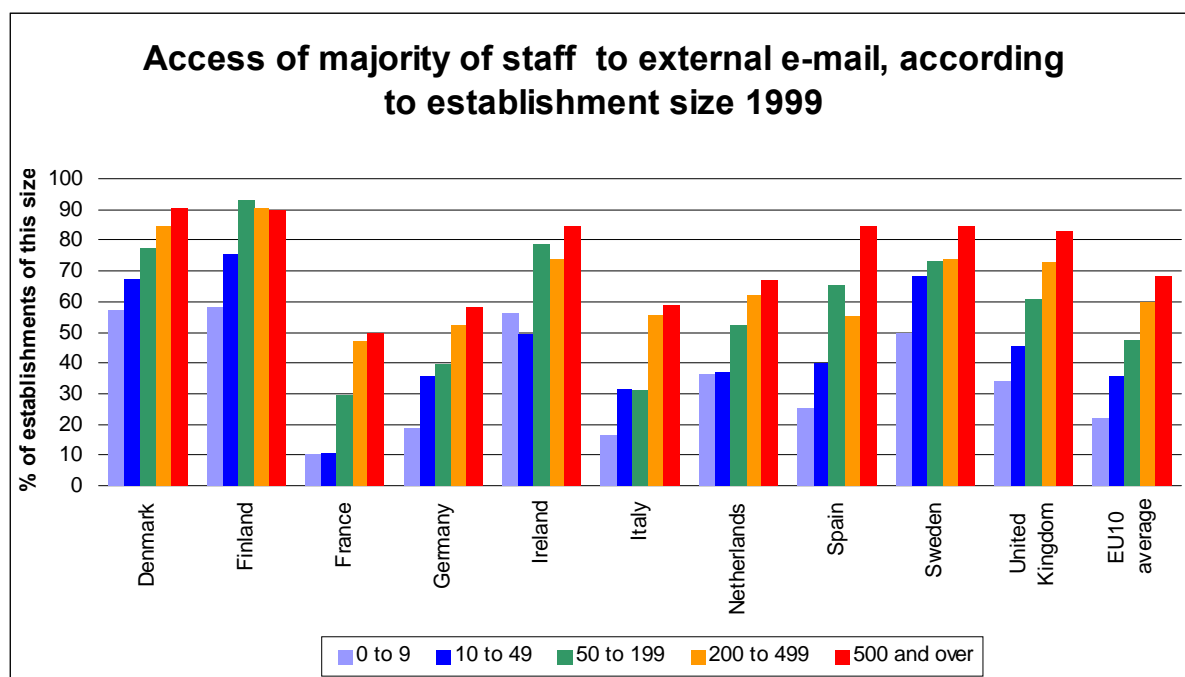
9 employees in France and Italy are expecting to have an e-mail access by the year 2001. In Germany this number is only slightly higher.



**TABLE 4: E-MAIL ACCESS FOR THE MAJORITY OF EMPLOYEES BY ESTABLISHMENT SIZE 1999 (IN %)**

	0 to 9	10 to 49	50 to 199	200 to 499	500 and more
<b>Denmark</b>	57.3	67.4	77.3	84.4	90.2
<b>Finland</b>	58.3	75.4	93.3	90.4	89.8
<b>France</b>	10.1	10.6	29.6	47.1	49.6
<b>Germany</b>	18.5	36.0	39.4	52.5	58.3
<b>Ireland</b>	55.9	49.4	78.5	73.6	84.5
<b>Italy</b>	16.6	31.3	30.9	55.7	58.7
<b>Netherlands</b>	36.2	37.0	52.5	62.2	66.7
<b>Spain</b>	25.4	39.9	65.0	55.0	84.3
<b>Sweden</b>	49.8	68.3	73.3	73.8	84.5
<b>U.K.</b>	34.2	45.6	61.0	72.9	83.0
<b>EUR10</b>	22.1	36.0	47.6	59.9	68.5

Base: All establishments (n = 4,158), weighted



### 1.1.3 Differentiation by sector

TABLE 5: E-MAIL USE BY SECTOR (IN %)

	Manufacturing etc. <sup>1</sup>		Distribution, transport & communications <sup>2</sup>		Financial & business services		Public sector etc. <sup>3</sup>	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	85.0	7.9	86.7	10.9	84.8	9.0	85.1	8.3
<b>Finland</b>	90.8	8.2	75.8	12.4	82.6	9.0	96.1	3.1
<b>France</b>	50.7	19.6	24.6	21.0	48.8	21.7	30.2	25.9
<b>Germany</b>	73.3	12.5	48.0	24.6	51.7	24.0	64.5	21.3
<b>Ireland</b>	74.5	11.8	72.1	12.3	81.2	4.3	85.1	9.4
<b>Italy</b>	58.4	9.7	37.4	14.3	55.6	16.1	52.7	19.2
<b>Netherlands</b>	70.8	12.4	74.3	11.4	92.9	3.6	70.0	16.7
<b>Spain</b>	65.7	14.9	58.4	19.5	91.6	6.0	65.2	16.7
<b>Sweden</b>	86.5	7.9	67.7	13.0	92.8	0.0	87.6	6.9
<b>U.K.</b>	80.5	11.1	65.8	17.7	85.8	8.0	78.6	10.6
<b>EUR10</b>	68.8	12.8	49.4	19.1	63.2	16.9	65.2	16.9

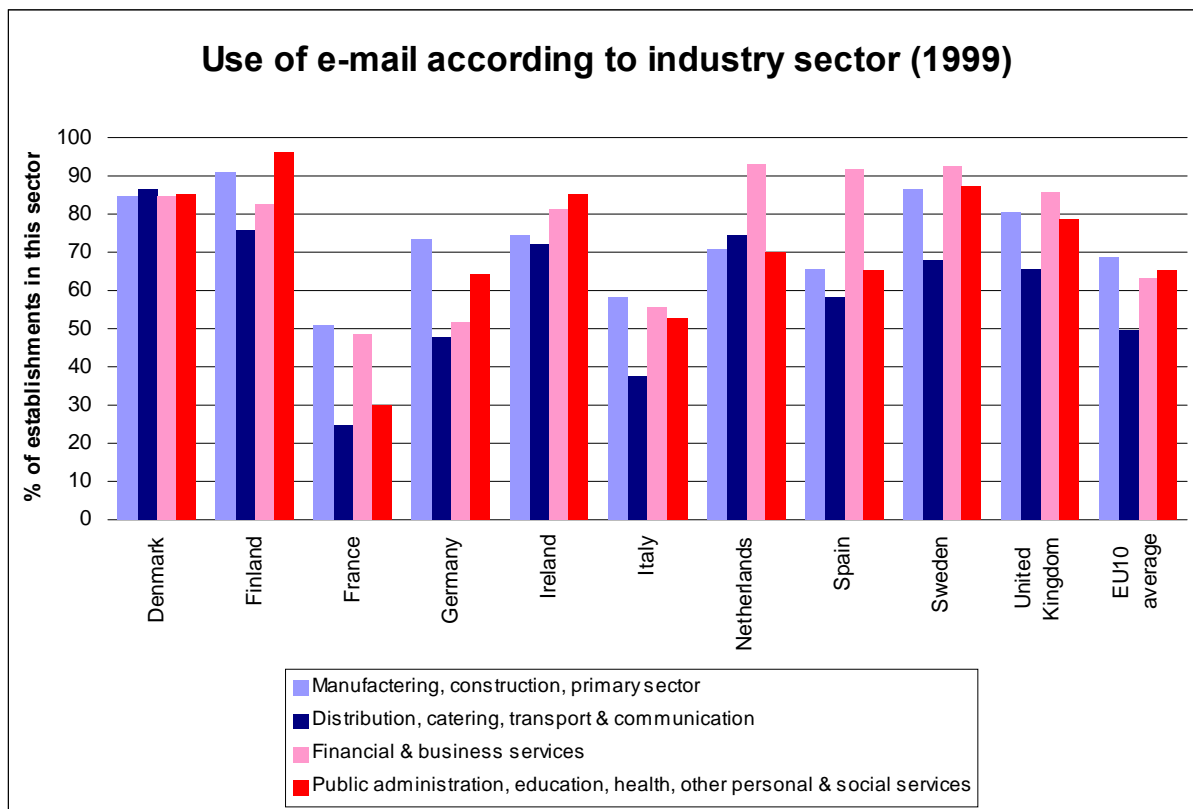
Base: All establishments (n = 4,158), weighted

<sup>1</sup> = manufacturing, construction, primary industry

<sup>2</sup> including catering

<sup>3</sup> = public administration, education, health, other personal & social services

In a differentiation by economic sector it is noticeable that there are no differences between manufacturing industry and service industry sectors that are worth mentioning. The commercial sector alone shows a below average e-mail penetration while in Germany the manufacturing sector overtakes even the business and financial services sector.



### 1.1.4 Differentiation by establishment location

TABLE 6: E-MAIL USE BY ESTABLISHMENT LOCATION (IN %)

	in large cities		in suburban area		in rural area or small city	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
Denmark	87.8	8.5	86.6	8.6	80.7	10.2
Finland	90.0	4.5	94.5	5.5	83.8	11.2
France	58.1	15.8	51.6	17.4	24.9	26.0
Germany	69.9	15.9	60.0	23.2	52.6	20.7
Ireland	77.3	11.1	81.6	12.3	71.0	9.8
Italy	49.8	14.8	57.5	13.8	42.9	13.6
Netherlands	79.3	14.1	79.3	13.4	68.8	10.4
Spain	72.1	13.3	62.6	17.4	57.9	18.6
Sweden	85.9	6.0	82.1	7.9	80.5	10.8
U.K.	82.6	11.3	71.1	14.7	74.4	11.4
EUR10	69.7	13.8	64.2	16.4	52.6	17.8

Base: All establishments (n = 4,158), weighted

The diffusion of e-mail has progressed further in establishments located in cities (more than 100,000 inhabitants) than in surrounding areas, and there again more than in rural areas. Although e-mail - as well as the other subsequent information technologies - is an innovation with the potential to reduce the disadvantages associated with rural and peripheral areas, it is used less there than in those central areas which are advantaged anyway. This town - country contrast is most marked in France. In Germany city establishments are separated by 17% from rural establishments. As the growth rates correlate with the degree of decentralisation, these contrasts will diminish during the further spread.

## 1.2 Internet

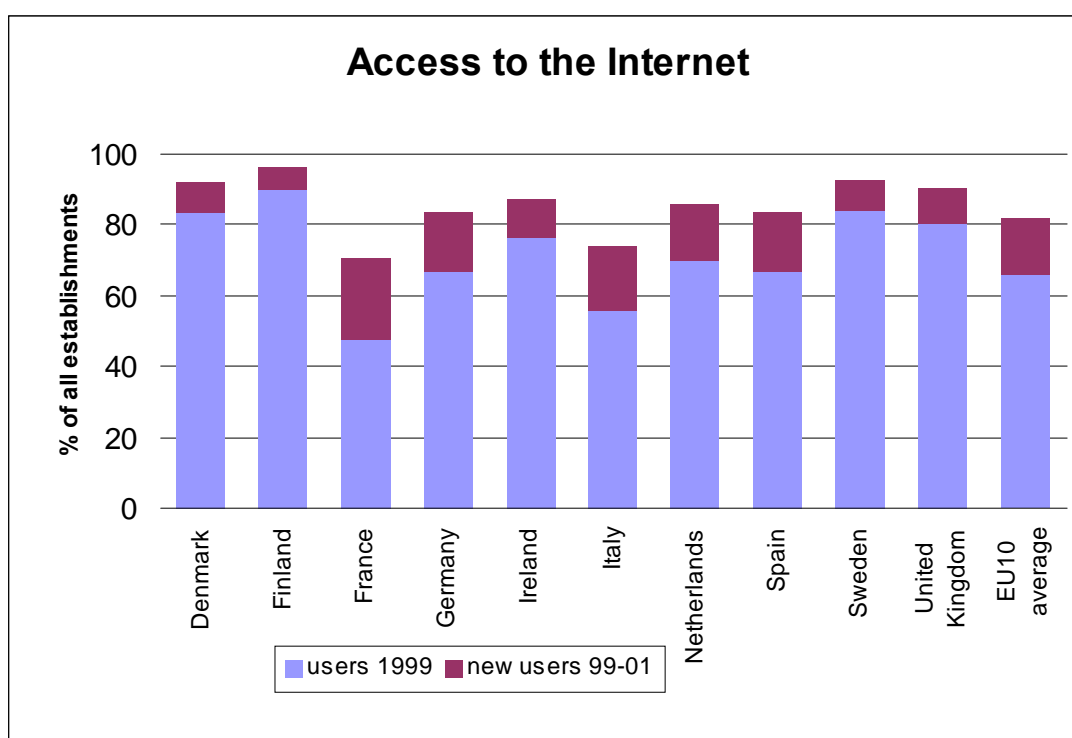
The comparative figures for Internet access are at almost the same level or at most a few percentage points higher. This means that not all establishments which have Internet access also use e-mail although this would be possible with almost no technological or financial effort. In these cases the Internet is evidently used only as a reference tool and for investigation purposes but not for interaction with a third party.

France in comparison to the other countries performs poorly (Minitel effect); however, a sizeable proportion of establishments which do not yet have access to the Internet have recognised its advantages over Minitel and are therefore planning to get connected within the next 2 years.

TABLE 7: INTERNET ACCESS (IN %)

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
Denmark	83.6	8.7	92.3	3	3
Finland	89.7	6.5	96.2	1	1
France	47.4	23.1	70.5	10	10
Germany	66.6	16.8	83.4	7	8
Ireland	76.1	10.9	87.0	5	6
Italy	55.7	18.2	73.9	9	9
Netherlands	70.3	15.7	86.0	6	6
Spain	66.4	17.2	83.6	8	7
Sweden	84.3	8.1	92.4	2	2
U.K.	80.0	10.5	90.5	4	4
EUR10	66.0	16.2	82.2		

Base: All establishments (n = 4,158), weighted



### 1.2.1 Employees' access to the Internet

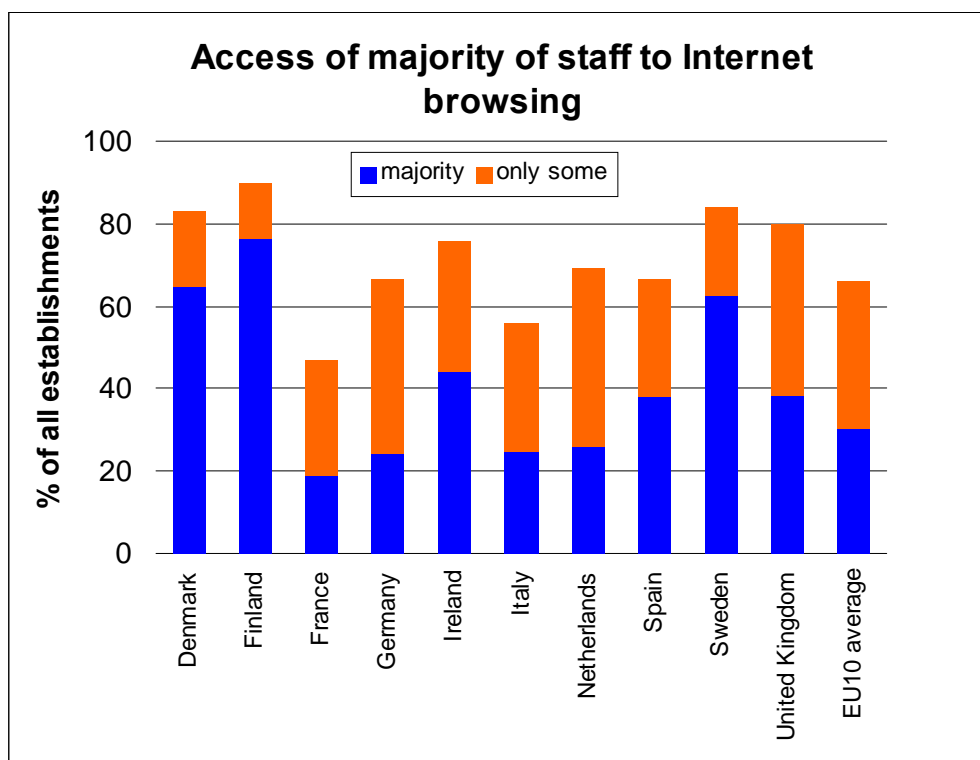
In 31% of all establishments the majority of (office) staff can browse the Internet themselves. This corresponds to 46% of all establishments that have Internet access. In Germany this latter number is only 36% - the lowest percentage in Europe and therefore a further indication of the restrictive practices of many German organisations which deny their employees

private use of the Internet. This result lends itself to the interpretation that the majority of German establishments value short term goals such as cost control at the workplace higher than the long-term increase in independence and media competence of their employees. In contrast Scandinavian establishments almost all behave exemplary - at or above 80% of workplaces which have Internet access make this available to the majority of their staff. Familiarity with the medium gained through regular Internet use at work might be one reason for the good results of the Scandinavians regarding E-Commerce practice.

TABLE 8: EMPLOYEES' INTERNET ACCESS (IN %)

	(1) Majority has access	(2) Only a minority has access	ranking re (1)	(1) in % of all user establ. Internet
<b>Denmark</b>	64.9	18.7	2	77.6
<b>Finland</b>	76.3	13.4	1	85.1
<b>France</b>	18.6	28.8	10	39.2
<b>Germany</b>	24.2	42.4	9	36.3
<b>Ireland</b>	44.4	31.7	4	58.3
<b>Italy</b>	24.5	31.2	8	44.0
<b>Netherlands</b>	25.7	44.6	7	36.6
<b>Spain</b>	38.1	28.3	6	57.4
<b>Sweden</b>	62.3	22.0	3	73.9
<b>U.K.</b>	38.5	41.5	5	48.1
<b>EUR10</b>	30.5	35.5		46.2

Base: All establishments (n = 4,158), weighted



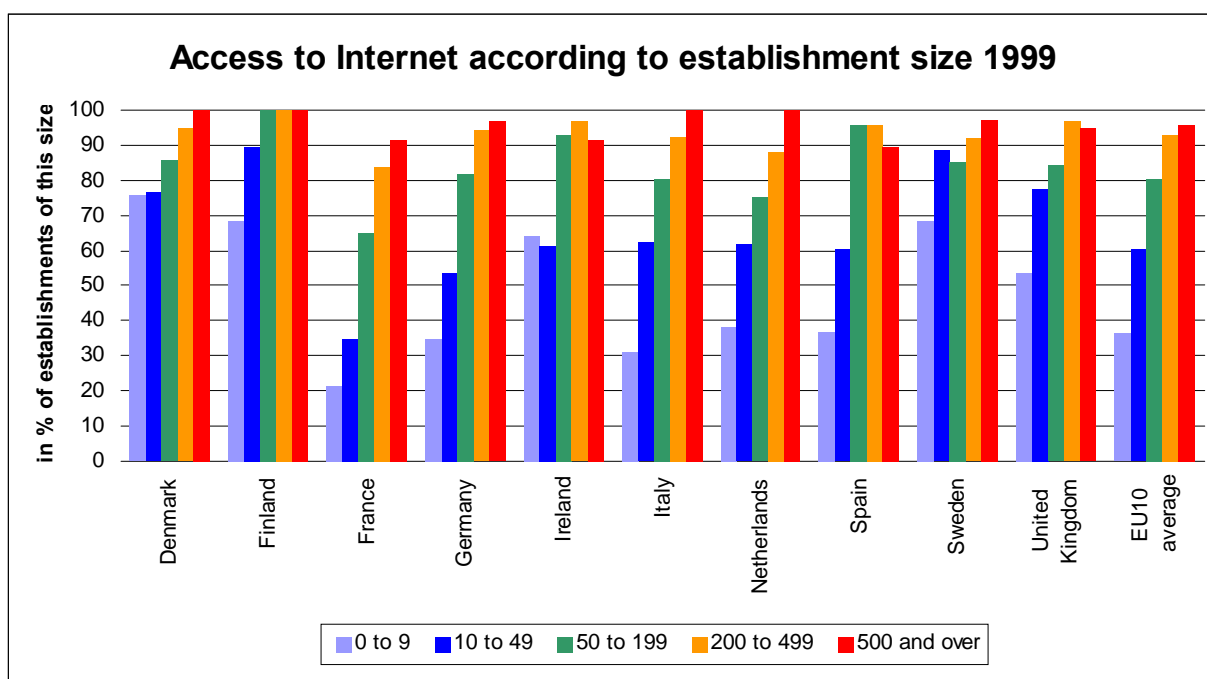
### 1.2.2 Differentiation by establishment size

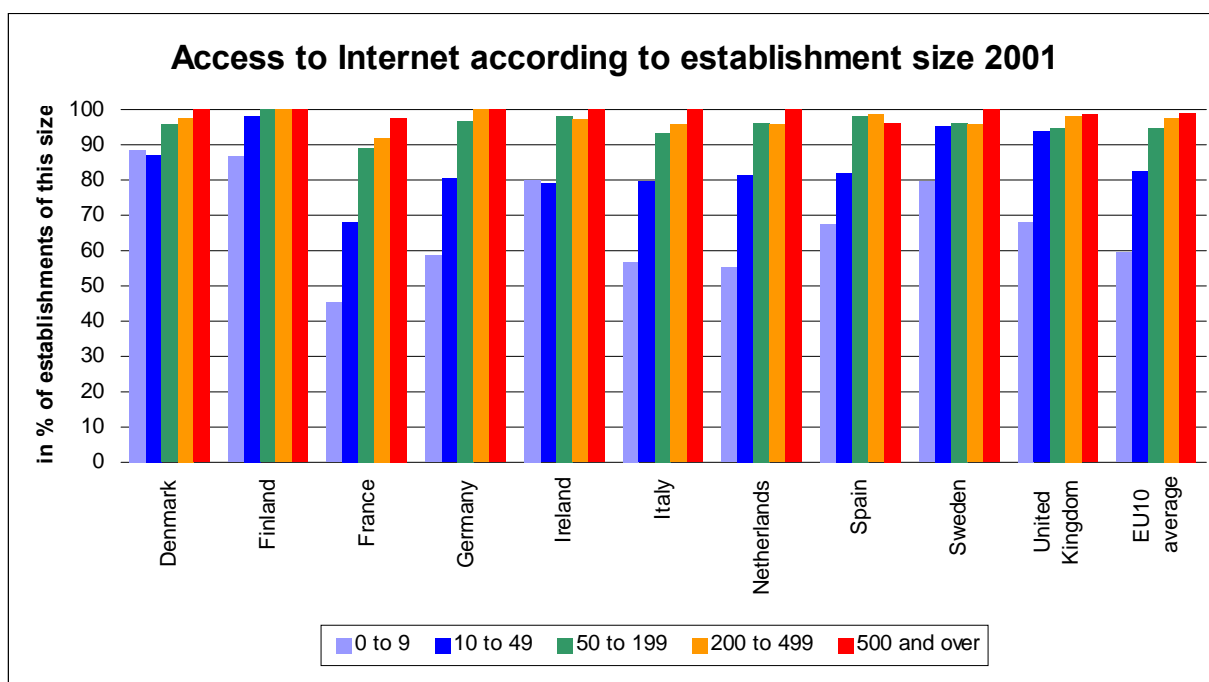
The table shows a high similarity to the situation with e-mail: Apart from a strong dependence on establishment size the particularly weak performance of France is noticeable (this can be explained by the wide spread of Minitel and the therefore delayed adaptation of the Internet). While in the larger European Union countries the spread of Internet use in larger organisations (more than 50 employees) rapidly approaches the 100% mark, penetration in the smaller organisations (less than 10 employees) is below 50% or only just above (the United Kingdom). By 2001 a sharp growth is expected especially in this part of the economy.

TABLE 9: INTERNET ACCESS BY ESTABLISHMENT SIZE (IN %)

	0 to 9		10 to 49		50 to 199		200 to 499		500 and more	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	75.8	13.0	76.4	10.9	85.8	9.9	94.9	2.6	100.0	
<b>Finland</b>	68.6	18.0	89.7	8.2	100.0		100.0		100.0	
<b>France</b>	21.4	23.7	35.1	33.2	65.0	24.0	83.9	8.1	91.5	6.3
<b>Germany</b>	35.1	23.4	53.4	27.0	82.0	14.6	94.1	5.7	96.6	3.4
<b>Ireland</b>	63.9	16.0	61.1	17.9	92.8	5.4	96.6	0.7	91.5	8.5
<b>Italy</b>	31.2	25.6	62.0	17.7	80.6	12.5	92.2	3.3	100.0	
<b>Netherlands</b>	38.3	17.0	61.7	19.8	75.0	21.3	87.8	8.1	100.0	
<b>Spain</b>	37.0	30.7	60.2	21.7	95.5	2.6	95.6	3.2	89.7	6.5
<b>Sweden</b>	68.4	11.3	88.5	6.7	85.1	11.2	91.8	4.1	97.2	2.8
<b>U.K.</b>	53.8	14.4	77.3	16.6	84.2	10.6	96.5	1.8	94.8	3.8
<b>EUR10</b>	36.6	22.8	60.2	22.2	80.6	14	92.9	4.6	95.5	3.6

Base: All establishments (n = 4,158), weighted





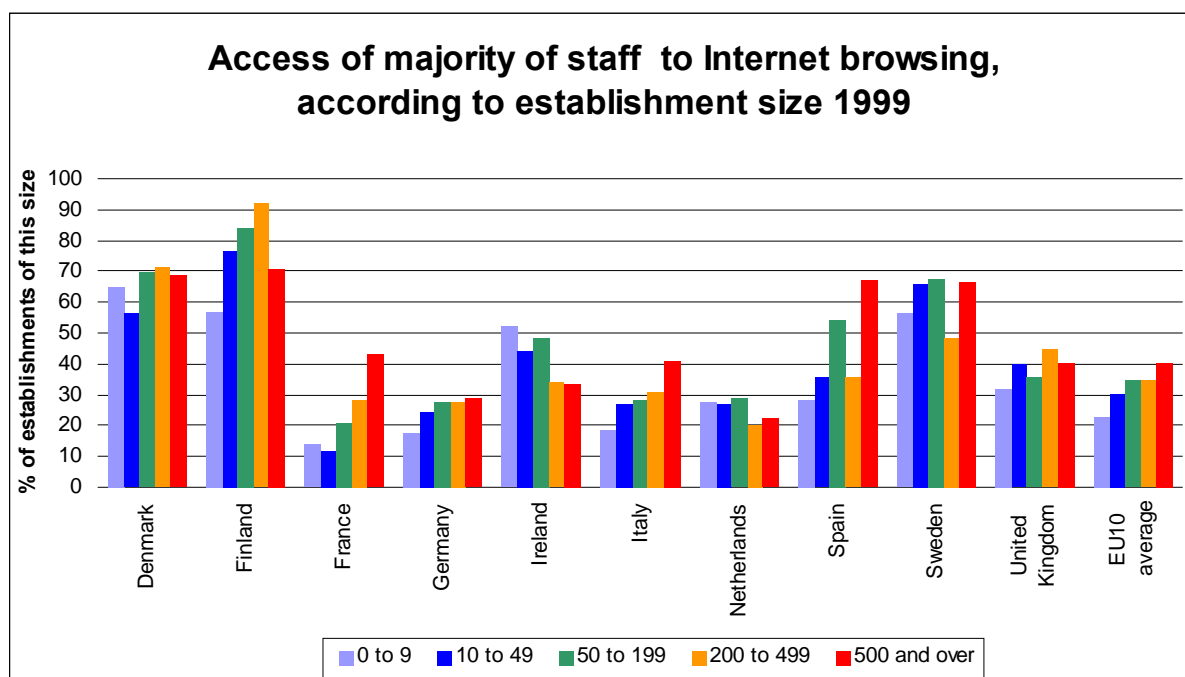
The differences between the countries with regard to availability of Internet browsing for the majority of employees are more noticeable still when differentiating by establishment size (number of employees). German establishments, in particular the largest, differ strikingly in their behaviour from their counterparts in the forerunner countries.

For the sample as a whole there is only a very small (positive) correlation between establishment size and the ability of the majority of employees to browse the net.

**TABLE 10: ACCESS TO THE INTERNET BY THE MAJORITY OF EMPLOYEES BY ESTABLISHMENT SIZE 1999 (IN %)**

	0 to 9	10 to 49	50 to 199	200 to 499	500 and more
<b>Denmark</b>	65,0	56,3	69,5	71,4	68,5
<b>Finland</b>	57,1	76,7	84,0	92,1	70,6
<b>France</b>	13,9	11,9	20,9	28,3	43,1
<b>Germany</b>	17,5	24,6	27,9	27,6	28,8
<b>Ireland</b>	52,2	44,4	48,6	33,9	33,6
<b>Italy</b>	18,7	27,3	28,2	31,0	41,1
<b>Netherlands</b>	27,7	27,2	28,8	20,3	22,2
<b>Spain</b>	28,1	35,5	54,1	35,8	67,0
<b>Sweden</b>	56,6	65,9	67,5	48,2	66,6
<b>U.K.</b>	32,0	39,9	35,6	44,6	40,2
<b>EUR10</b>	23,0	30,4	34,8	34,4	40,3

**Base: All establishments (n = 4,158), weighted**



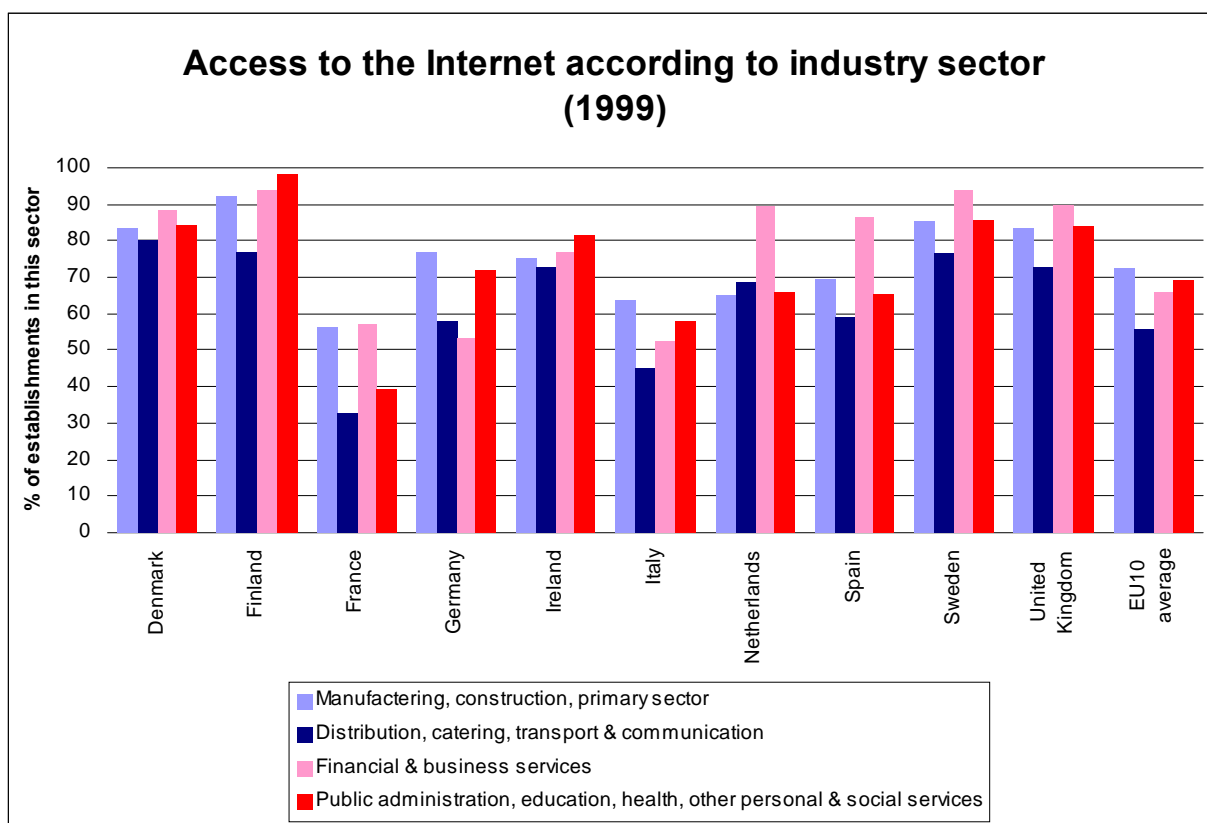
### 1.2.3 Differentiation by sector

The influence of the economic sector on the penetration of Internet access is similar to the e-mail situation (see above). In Germany establishments in the manufacturing sector again perform best. Here more than  $\frac{3}{4}$  of establishments have Internet access while only slightly more than half in the business and financial services sector do.

TABLE 11: INTERNET ACCESS BY SECTOR (IN %)

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	83.4	9.2	80.3	10.8	88.5	4.9	84.3	8.9
<b>Finland</b>	92.1	7.4	76.9	11.3	93.8	6.2	98.0	0.9
<b>France</b>	56.2	23.7	32.5	20.3	57.2	25.8	39.2	22.6
<b>Germany</b>	77.0	11.2	58.2	16.5	53.6	24.6	72.1	18.5
<b>Ireland</b>	75.2	13.2	73.0	11.6	77.1	6.2	81.7	8.7
<b>Italy</b>	63.5	12.0	45.0	22.8	52.4	24.5	58.2	18.9
<b>Netherlands</b>	65.2	16.9	68.6	17.1	89.3	8.9	65.8	17.5
<b>Spain</b>	69.5	15.6	59.1	18.8	86.7	10.8	65.4	20.6
<b>Sweden</b>	85.4	9.4	76.4	6.7	94.0	2.4	85.6	9.5
<b>U.K.</b>	83.5	8.8	72.7	15.1	89.8	4.0	84.0	9.7
<b>EUR10</b>	72.2	13.3	55.9	17.7	66.1	18.7	69.1	16.3

Base: All establishments (n = 4,158), weighted



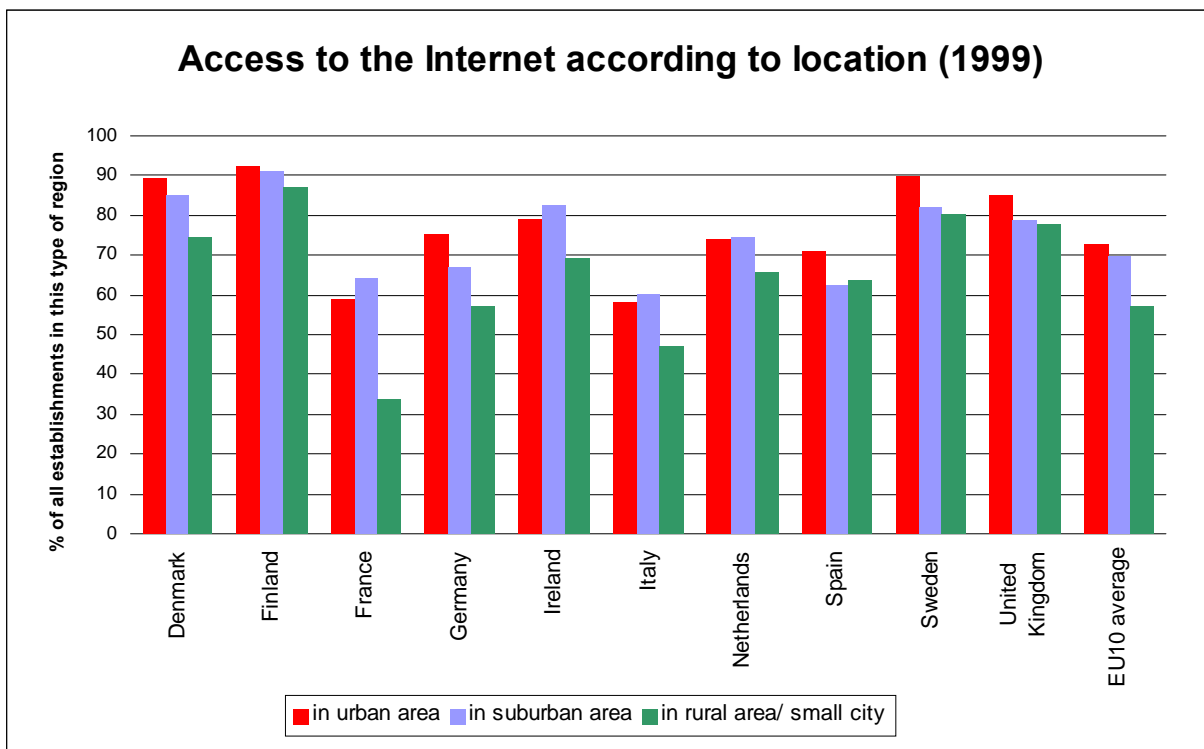
## 1.2.4 Differentiation by establishment location

TABLE 12: INTERNET ACCESS BY ESTABLISHMENT LOCATION (IN %)

	in large cities		in suburban area		in rural area or small city	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	89.2	6.9	85.2	7.5	74.2	14.2
<b>Finland</b>	92.2	3.9	91.2	8.8	87.0	8.5
<b>France</b>	59.0	21.7	64.0	11.5	33.6	29.2
<b>Germany</b>	75.1	12.7	66.9	20.5	57.3	18.6
<b>Ireland</b>	79.1	8.4	82.4	11.8	69.1	12.6
<b>Italy</b>	58.1	20.3	60.1	19.1	47.1	14.7
<b>Netherlands</b>	73.9	16.3	74.4	18.3	65.6	12.8
<b>Spain</b>	71.0	13.1	62.6	21.9	63.5	18.8
<b>Sweden</b>	89.6	3.4	82.1	7.9	80.5	10.8
<b>U.K.</b>	85.0	9.2	78.8	11.0	77.6	10.9
<b>EUR10</b>	72.7	14.0	69.5	15.9	57.1	18.3

Base: All establishments (n = 4,158), weighted

The influence of the establishment location on penetration of Internet use is generally comparable to the e-mail situation (see above). Only in France do the results indicate a clear need for measures to facilitate access to the Internet for establishments in rural locations. Especially in view of the fact that the cost of Internet access is higher the more decentralised a location is, the relatively good performance of out of town establishments, at least in the initial diffusion phase, is reassuring.



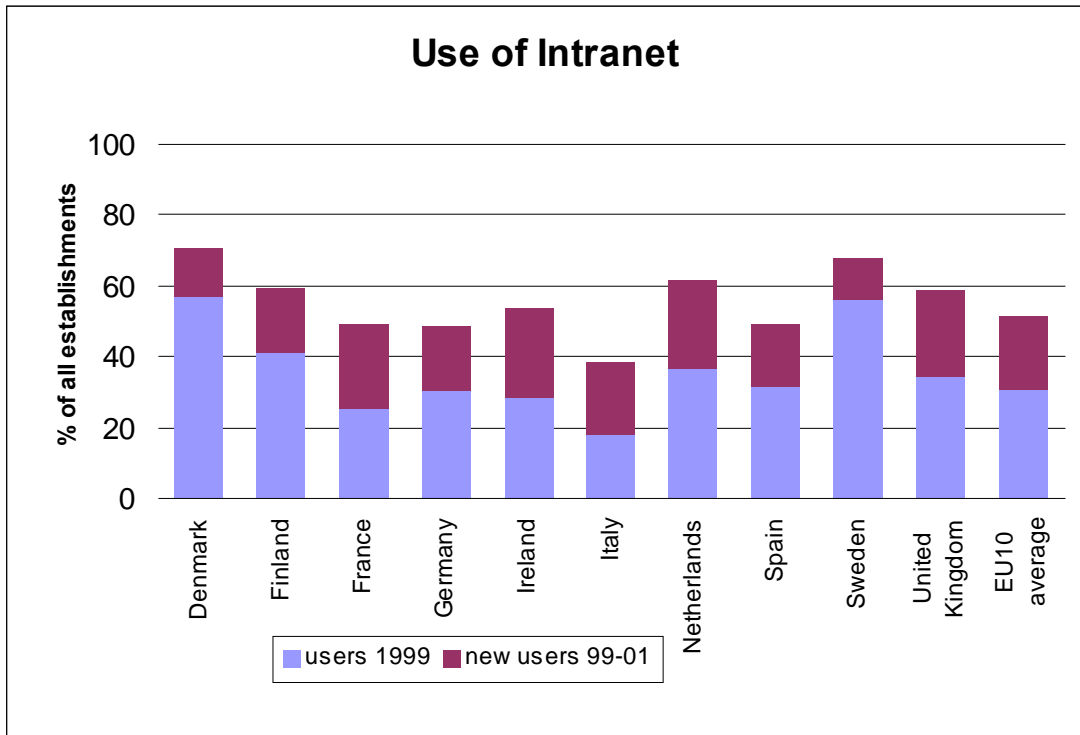
## 1.3 Intranet

TABLE 13: INTRANET USE (IN %)

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
<b>Denmark</b>	57.1	13.6	70.7	1	1
<b>Finland</b>	41.3	18.3	59.6	3	4
<b>France</b>	25.5	23.8	49.3	9	8
<b>Germany</b>	30.7	18.0	48.7	7	9
<b>Ireland</b>	28.2	25.5	53.7	8	6
<b>Italy</b>	18.3	20.4	38.7	10	10
<b>Netherlands</b>	37.0	24.3	61.3	4	3
<b>Spain</b>	31.8	17.6	49.4	6	7
<b>Sweden</b>	55.8	12.2	68.0	2	2
<b>U.K.</b>	34.7	23.8	58.5	5	5
<b>EUR10</b>	30.6	20.6	51.2		

Base: All establishments (n = 4,158), weighted

31% of all EUR10 establishments have an intranet. This is about half the number of those who have Internet access. By 2001 this proportion will have increased to more than 50% because around 20% of establishments have already planned to introduce an intranet in the near future. France, Italy and Ireland can report growth rates at or around 50%. Again Germany reaches only 8<sup>th</sup> position. Denmark and Sweden, where today more than 50% of establishments already have an intranet and where this number will have increased to 2/3 over the next 2 years, stand out clearly.



### 1.3.1 Employees' access to intranet browsing

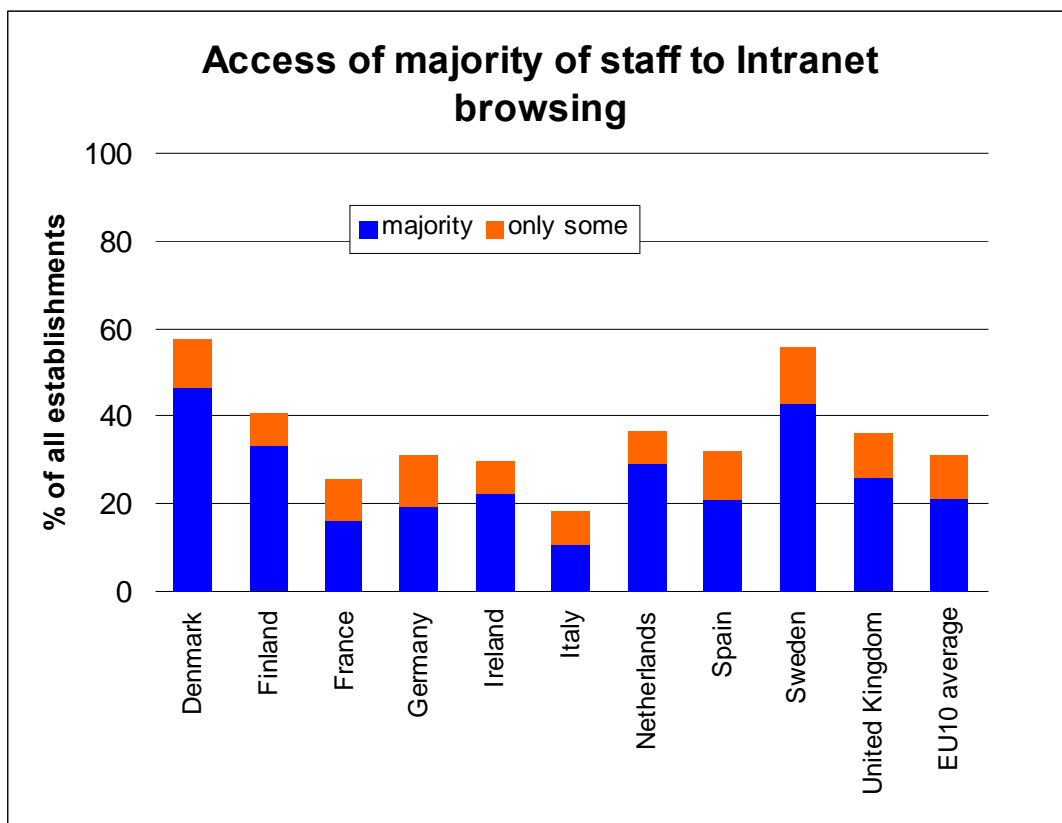
TABLE 14: EMPLOYEES' ACCESS TO THE INTRANET BROWSING (IN %)

	(1) Majority has access	(2) Only a minority has access	ranking re (1)	(1) in % of all Intranet users
Denmark	46.7	10.4	1	81.8
Finland	33.5	7.8	3	81.1
France	16.2	9.3	9	63.5
Germany	19.4	11.3	8	63.2
Ireland	22.3	5.9	6	79.1
Italy	10.6	7.7	10	57.9
Netherlands	29.0	8.0	4	78.4
Spain	20.9	10.9	7	65.7
Sweden	43.1	12.7	2	77.2
U.K.	25.9	8.8	5	74.6
EUR10	21.0	9.6		68.6

Base: All establishments (n = 4,158), weighted

In contrast to the Internet, with an intranet an organisation has far reaching control over the information available to employees. For this reason, possible reservations regarding employees' access to the Internet should play a minor role with the intranet. Furthermore actual usage does not incur any direct costs. Despite this a large proportion of establishments do not make their intranet available to all their office staff.

Presumably establishments in countries where IP networks have only recently made their entrance on a large scale, initially equip only parts of their workforce while the leading countries - again the Scandinavians - embraced the IP technology more fully and implemented it more speedily for internal networking. It is assumed that the high use of the Internet by large numbers of the workforce in many Scandinavian countries acted as a push-start for the introduction of an intranet. This allows the combination of the advantages of the Internet (in particular user friendliness) with the advantages of an information medium for closed user groups.



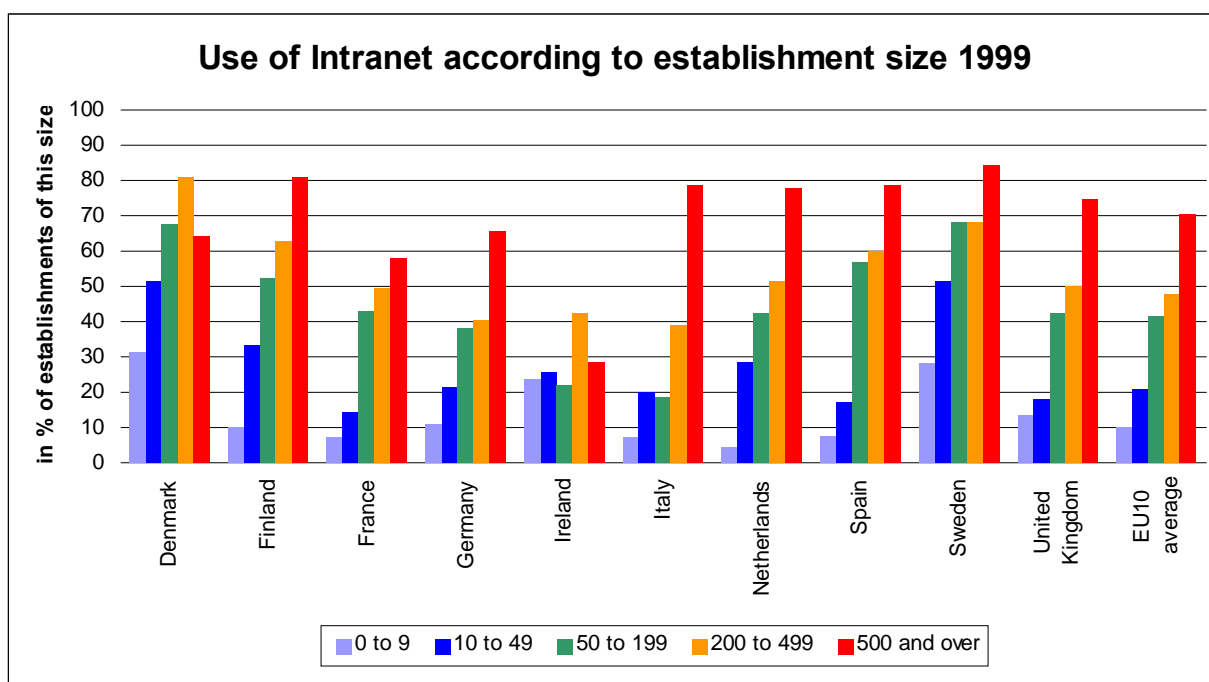
### 1.3.2 Differentiation by establishment size

The benefits of a communication medium increase exponentially with the number of people who have access. It is therefore not surprising that there is a clear correlation between number of employees and the proportion of establishments which have an intranet. For small establishments, especially those with less than 10 employees, the attractiveness of the intranet technology is much less than for bigger ones. This explains why even in the leading countries, in this group not more than 30% are users - in Finland it is only 10%, about the same as in Germany.

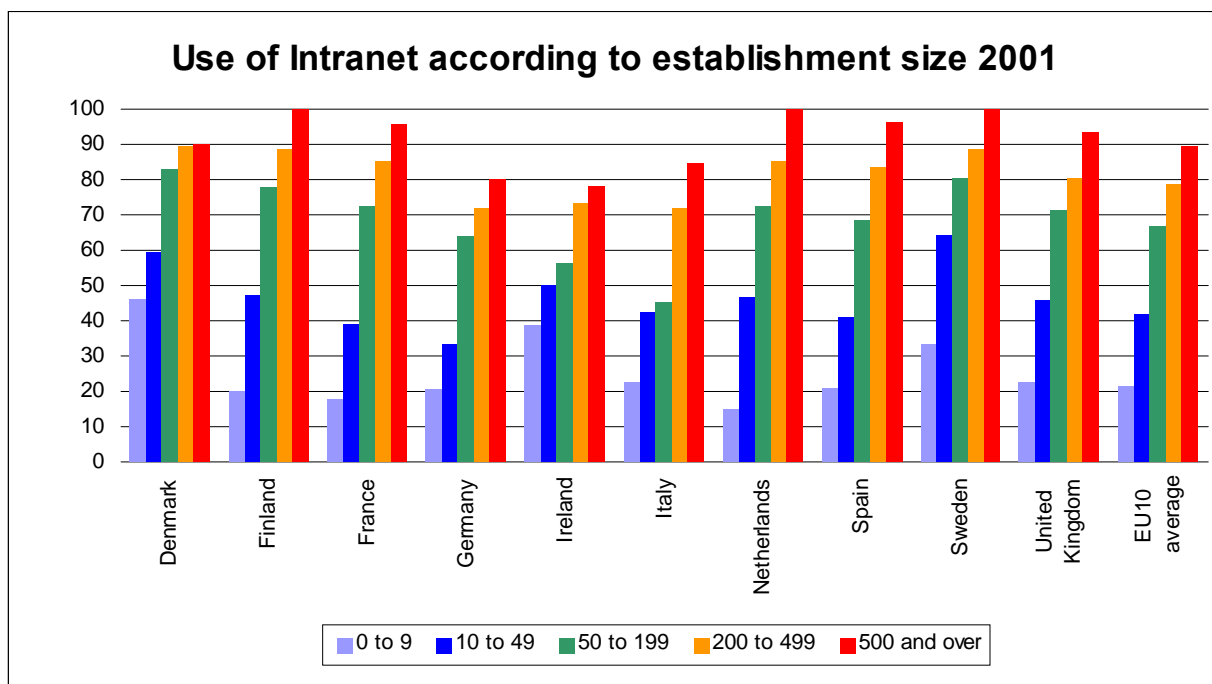
TABLE 15: INTRANET USE BY ESTABLISHMENT SIZE (IN %)

	0 to 9		10 to 49		50 to 199		200 to 499		500 and more	
	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001
<b>Denmark</b>	31,4	14,8	51,2	8,5	67,4	15,6	81,0	8,7	64,5	25,7
<b>Finland</b>	9,8	10,1	33,4	13,7	52,5	25,2	62,8	25,6	80,8	19,2
<b>France</b>	7,1	10,3	14,1	25,1	42,9	29,7	49,3	36,1	58,2	37,5
<b>Germany</b>	10,9	9,8	21,4	11,9	38,0	25,6	40,7	31,2	65,7	14,5
<b>Ireland</b>	23,8	14,8	25,6	24,3	22,1	34,3	42,5	30,6	28,7	49,2
<b>Italy</b>	7,2	15,3	19,9	22,5	18,7	26,6	38,9	33,2	78,7	6,0
<b>Netherlands</b>	4,3	10,6	28,4	18,5	42,5	30,0	51,4	33,8	77,8	22,2
<b>Spain</b>	7,5	13,6	17,2	23,9	56,8	11,6	60,0	23,2	78,4	17,8
<b>Sweden</b>	27,9	5,6	51,3	12,8	67,9	12,5	68,1	20,7	84,5	15,5
<b>U.K.</b>	13,5	9,1	18,0	27,8	42,4	29,2	49,9	30,8	74,6	18,9
<b>EUR10</b>	9,9	11,6	21,0	20,9	41,5	25,3	47,6	30,9	70,3	19,1

Base: All establishments (n = 4,158), weighted

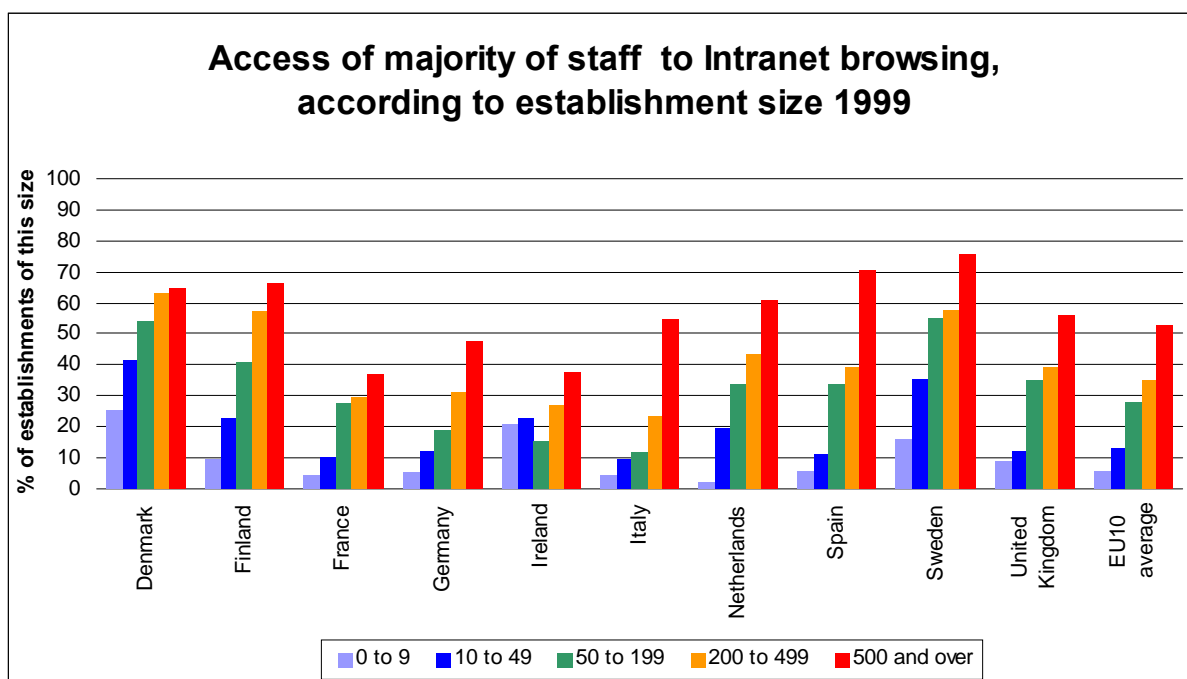


Over the next 2 years a large number of new intranets are being set up in all different establishment size groups. Higher growth rates in the laggard countries mean that the intranet spread in larger establishments in all countries will converge.

**TABLE 16: ACCESS TO INTRANET BROWSING BY THE MAJORITY OF EMPLOYEES, BY ESTABLISHMENT SIZE 1999 (IN %)**

	0 to 9	10 to 49	50 to 199	200 to 499	500 and more
<b>Denmark</b>	25,3	41,3	54,0	62,8	64,5
<b>Finland</b>	9,5	23,0	40,8	57,1	66,0
<b>France</b>	4,1	10,0	27,5	29,6	36,9
<b>Germany</b>	5,3	12,0	19,0	31,3	47,5
<b>Ireland</b>	20,6	22,6	15,3	27,1	37,6
<b>Italy</b>	4,0	9,3	11,7	23,5	54,7
<b>Netherlands</b>	2,1	19,8	33,8	43,2	61,1
<b>Spain</b>	5,9	11,2	34,1	39,4	70,2
<b>Sweden</b>	15,8	35,7	55,2	57,7	75,4
<b>U.K.</b>	8,8	12,1	34,8	39,0	56,2
<b>EUR10</b>	5,9	13,4	27,8	35,0	53,0

**Base: All establishments (n = 4,158), weighted**



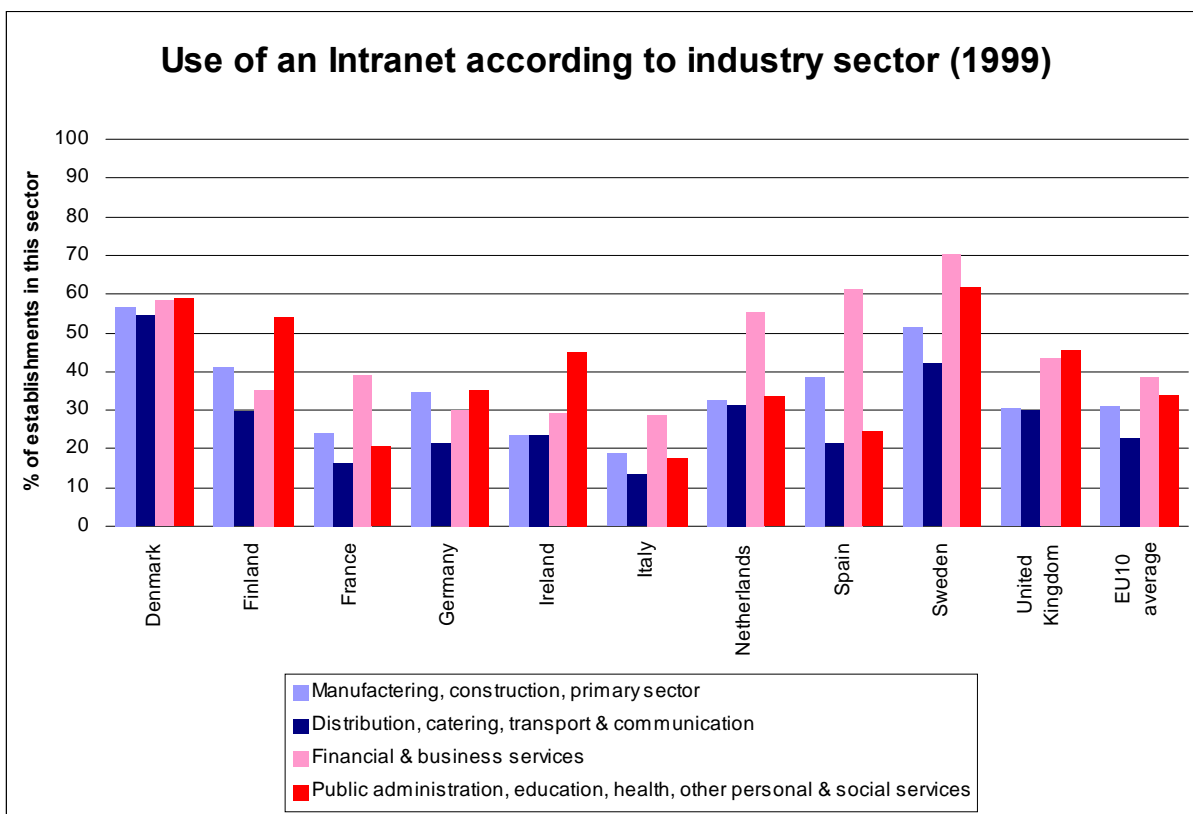
### 1.3.3 Differentiation by sector

While intranets have a slightly below average spread in the commercial sector, they are very evenly spread over the other sectors. Here the public sector does not in any way lag behind the other sectors, in Germany it even shows the highest uptake.

TABLE 17: INTRANET USE BY SECTOR (IN %)

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	56.5	15.8	54.7	9.7	58.3	8.1	59.0	17.0
<b>Finland</b>	41.0	18.7	29.6	23.8	35.2	14.7	54.0	14.7
<b>France</b>	24.0	26.9	16.2	21.5	39.2	24.8	20.8	18.8
<b>Germany</b>	34.7	19.8	21.4	15.1	30.1	15.2	35.3	19.2
<b>Ireland</b>	23.5	24.8	23.8	26.3	29.3	31.1	45.1	16.1
<b>Italy</b>	18.9	23.5	13.4	17.4	28.6	17.8	17.6	20.5
<b>Netherlands</b>	32.6	25.8	31.4	11.4	55.4	17.9	33.3	30.0
<b>Spain</b>	38.8	17.4	21.6	19.3	61.3	13.4	24.6	17.1
<b>Sweden</b>	51.3	13.9	41.9	8.9	70.5	5.8	62.0	14.7
<b>U.K.</b>	30.5	24.8	30.1	22.4	43.3	24.2	45.4	25.7
<b>EUR10</b>	30.8	22.3	22.6	18.7	38.6	19.4	34.0	20.9

Base: All establishments (n = 4,158), weighted



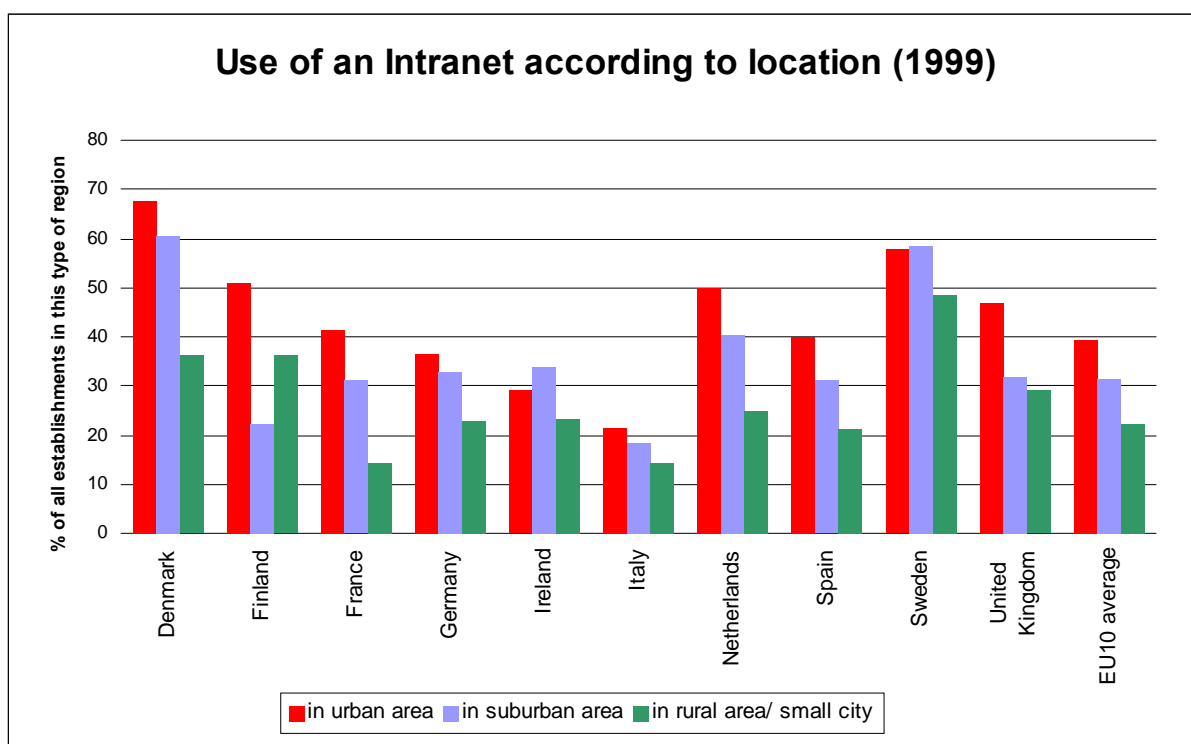
### 1.3.4 Differentiation by establishment location

Differences regarding penetration rates in cities, in suburban and in rural areas are much more marked for the intranet than for e-mail or Internet use, as its implementation demands a much higher financial and organisational commitment. It is likely that the reason for this is linked with the different establishment sizes which are prevalent in the various locations as larger establishments, which - as has been shown previously - are more likely to have an established intranet, have an above average presence in cities.

TABLE 18: INTRANET USE BY ESTABLISHMENT LOCATION (IN %)

	in large cities		in suburban area		in rural area or small city	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
Denmark	67.6	6.1	60.5	12.7	36.2	26.8
Finland	51.1	18.0	22.2	33.6	36.2	15.4
France	41.4	22.4	31.2	26.6	14.5	23.3
Germany	36.6	18.3	32.9	19.0	22.8	17.0
Ireland	29.1	30.4	34.0	22.8	23.4	22.6
Italy	21.5	19.4	18.5	22.9	14.5	18.0
Netherlands	50.0	17.4	40.2	25.6	24.8	28.8
Spain	40.1	18.2	31.1	13.5	21.2	20.5
Sweden	57.7	7.0	58.4	13.4	48.5	18.4
U.K.	46.8	18.3	31.7	25.5	28.9	26.3
EUR10	39.4	18.4	31.4	21.9	22.1	21.5

Base: All establishments (n = 4,158), weighted



## 1.4 Video Conferencing

Video conferencing embraces various technologies for the transmission of real-time moving pictures. Here a distinction must be made between desktop systems which are integrated into the individual workstation and as a rule are used by only one person each, and larger video conferencing systems which can take up whole rooms and which are conceived for

communication between larger groups of people. Therefore in the following discussion employees' access to video conferencing does not imply that each employee have their own system at their workstation.

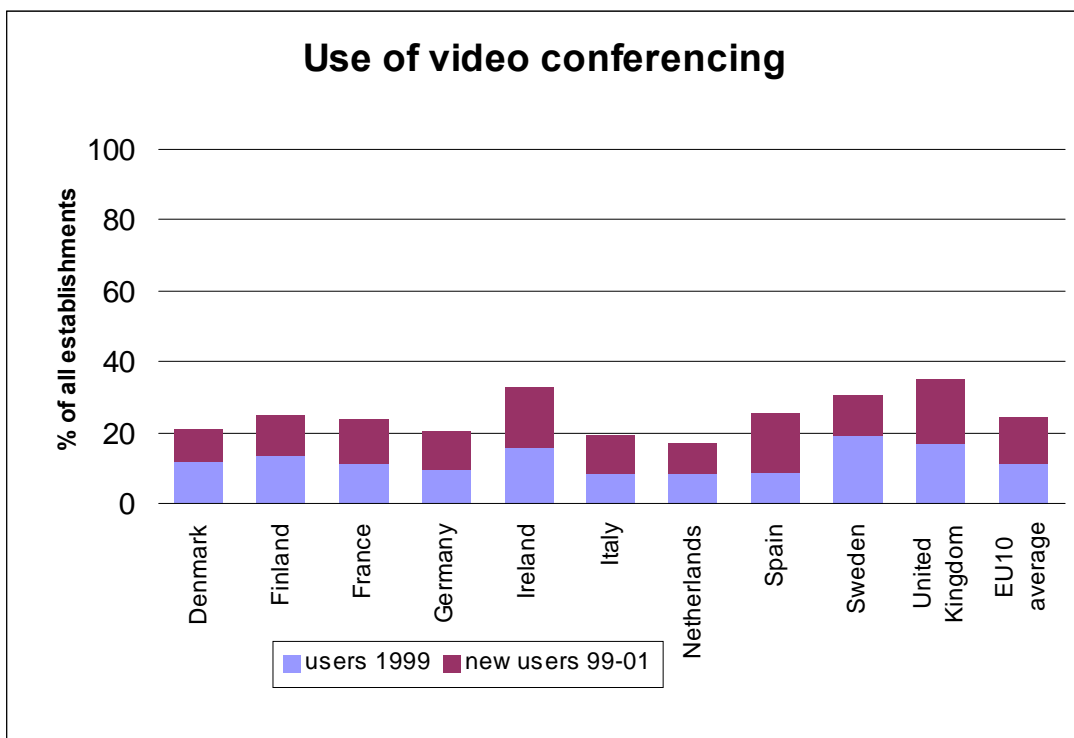
**TABLE 19: USE OF VIDEO CONFERENCING (IN %)**

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
<b>Denmark</b>	11.6	9.1	20.7	5	7
<b>Finland</b>	13.5	11.1	24.6	4	5
<b>France</b>	11.1	12.5	23.6	6	6
<b>Germany</b>	9.8	10.5	20.3	7	8
<b>Ireland</b>	16.0	16.5	32.5	3	2
<b>Italy</b>	8.3	10.7	19.0	10	9
<b>Netherlands</b>	8.7	8.3	17.0	8	10
<b>Spain</b>	8.6	16.8	25.4	9	4
<b>Sweden</b>	19.3	11.4	30.7	1	3
<b>U.K.</b>	17.2	17.9	35.1	2	1
<b>EUR10</b>	11.5	12.9	24.4		

**Base: All establishments (n = 4,158), weighted**

Use of video conferencing can be taken as a further indication of openness towards the application of new information technologies. This technology is still in its infancy, only around 12% of EUR10 establishments currently use it. Again, the Scandinavian countries belong to the strongest user group, together with The United Kingdom and Ireland where it is used mainly for communication between US American subsidiaries and their parent organisations overseas. Therefore by 2001, video conferencing will have its widest spread in the Anglo Saxon countries and will be used by around one third of establishments.

Judged by current plans for the introduction of video conferencing, over the next years growth in this area will be extensive, and in 2 years the average growth throughout the EU will be above 100%. The still low spread together with these growth expectations indicate that this technology at the moment is on the launch pad but will take off over the next years.



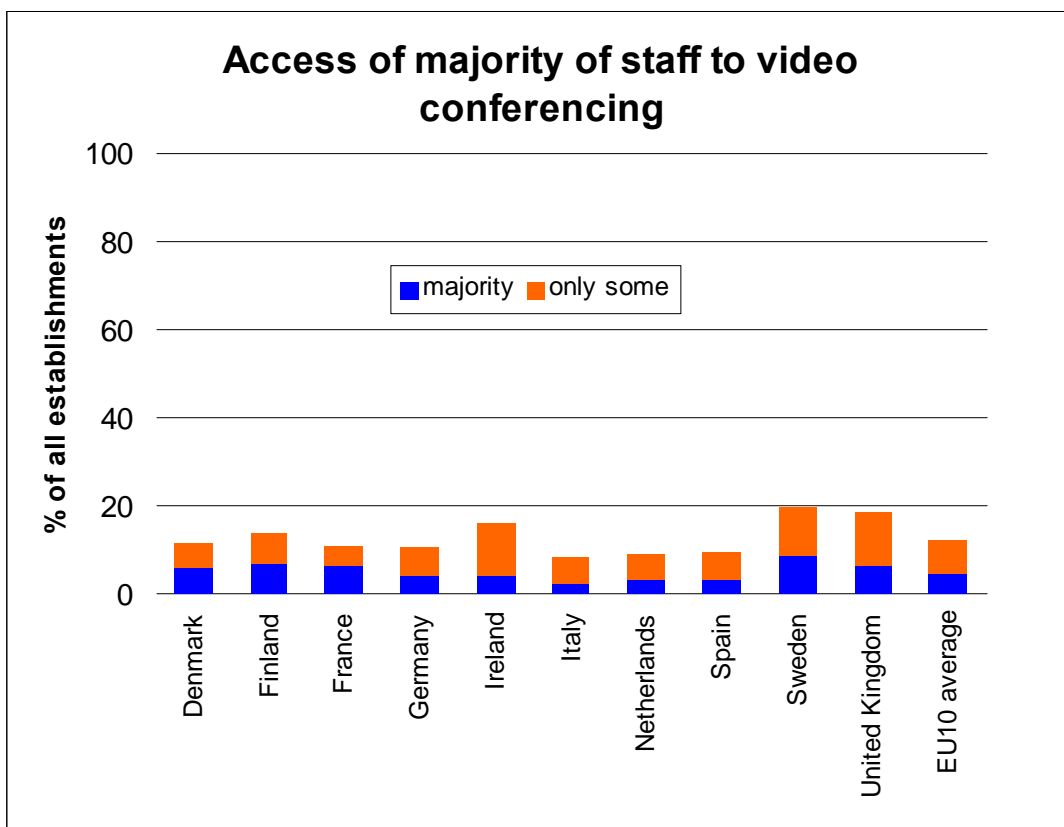
### 1.4.1 Employees' access to video conferencing

While the proportion of establishments where the majority of office employees have access to video conferencing is relatively high in the Scandinavian countries (around half of all users) the proportion in the United Kingdom and Ireland is much lower. This leads to the assumption that desktop video conferencing is already widespread in Scandinavia and France while in the other countries free-standing systems which can only be accessed by a selected group of employees dominate.

TABLE 20: EMPLOYEES' ACCESS TO VIDEO CONFERENCING (IN %)

	(1) Majority has access	(2) Only a minority has access	ranking re (1)	(1) in % of all user establ. Video-Conf.
Denmark	5.8	5.8	5	50.0
Finland	6.7	6.8	2	49.6
France	6.2	4.9	4	55.9
Germany	3.9	5.9	6	39.8
Ireland	3.9	12.1	6	24.4
Italy	2.4	5.9	10	28.9
Netherlands	3.3	5.4	8	37.9
Spain	3.0	5.6	9	34.9
Sweden	8.6	10.7	1	44.6
U.K.	6.5	10.7	3	37.8
EUR10	4.7	6.8		40.9

Base: All establishments (n = 4,158), weighted

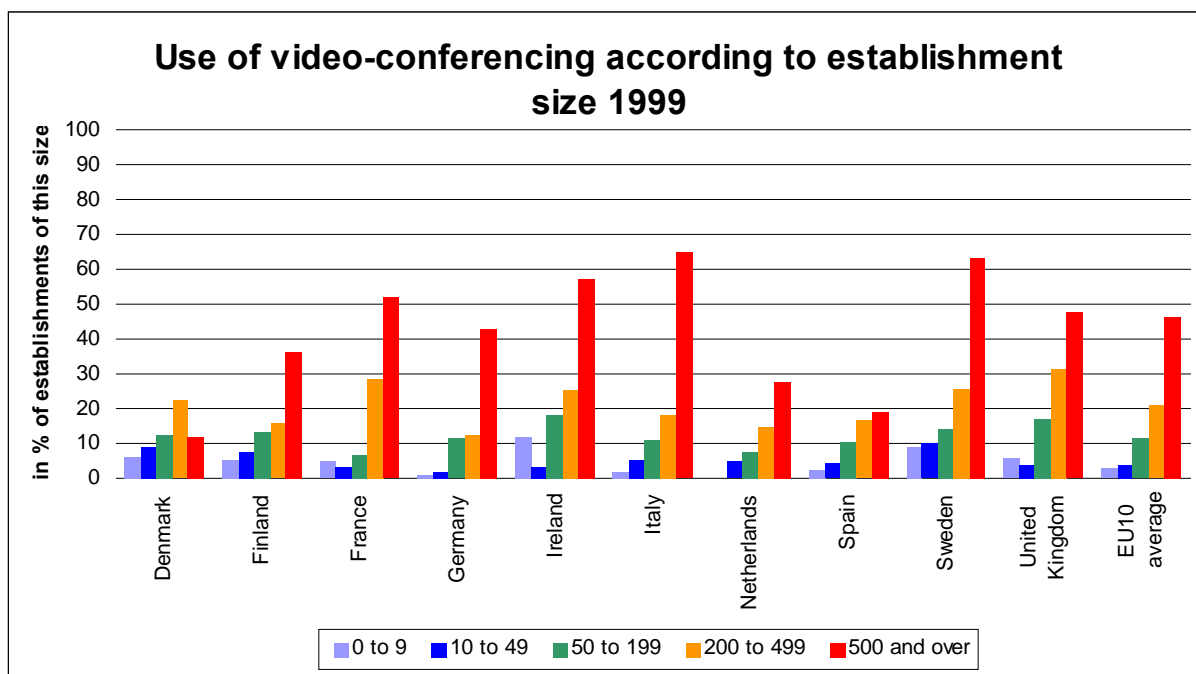


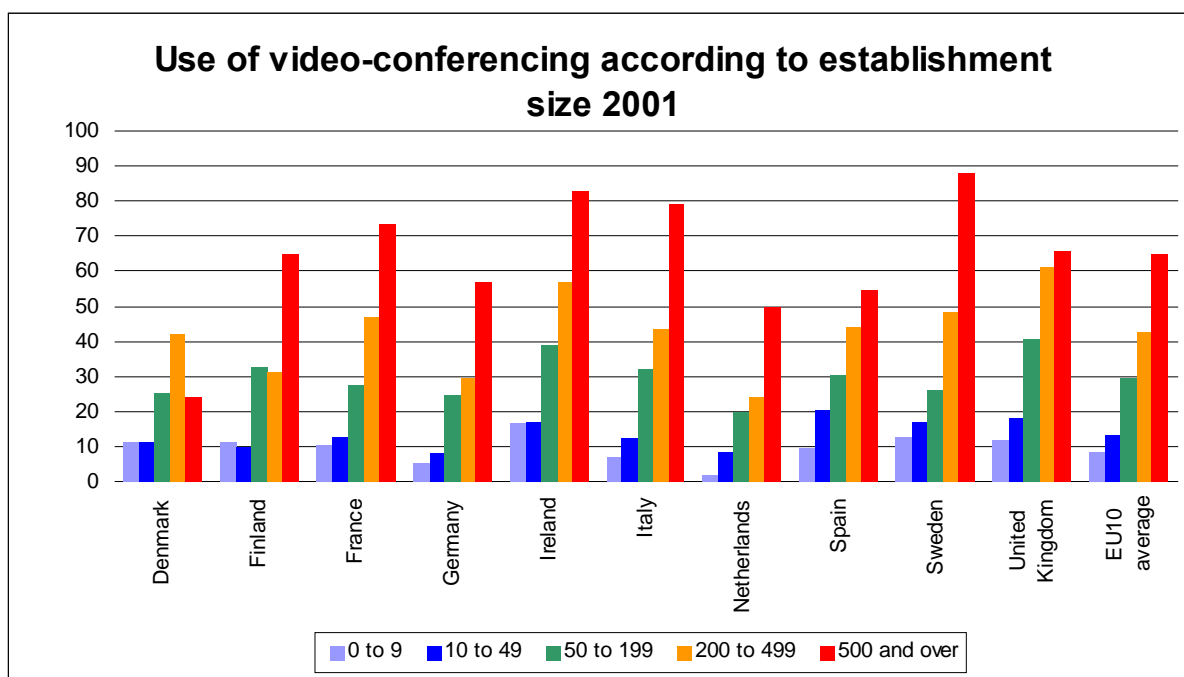
### 1.4.2 Differentiation by establishment size

TABLE 21: USE OF VIDEO CONFERENCING BY ESTABLISHMENT SIZE (IN %)

	0 to 9		10 to 49		50 to 199		200 to 499		500 and more	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
Denmark	6.3	4.9	9.0	2.6	12.4	12.7	22.5	19.9	12.0	12.1
Finland	5.3	6.2	7.8	2.1	13.3	19.6	15.6	15.6	36.1	28.8
France	4.7	5.7	3.5	9.4	6.7	20.6	28.7	18.1	51.7	21.7
Germany	0.8	4.5	1.9	6.2	11.2	13.5	12.2	17.3	42.7	14.2
Ireland	11.9	4.9	3.1	14.0	18.1	20.9	25.4	31.4	57.2	25.7
Italy	1.7	5.3	5.3	6.8	10.8	21.3	18.3	25.1	65.0	14.3
Netherlands	0.0	2.1	4.9	3.7	7.5	12.5	14.9	9.5	27.8	22.2
Spain	2.2	7.2	4.5	16.0	10.7	19.7	16.8	27.5	19.0	35.3
Sweden	9.0	4.0	10.0	7.2	14.2	11.8	25.8	22.5	63.2	24.9
U.K.	5.6	6.1	3.7	14.5	17.1	23.5	31.5	29.7	47.8	17.9
EUR10	3.0	5.4	4.0	9.4	11.2	18.2	21.1	21.7	46.0	18.8

Base: All establishments (n = 4,158), weighted





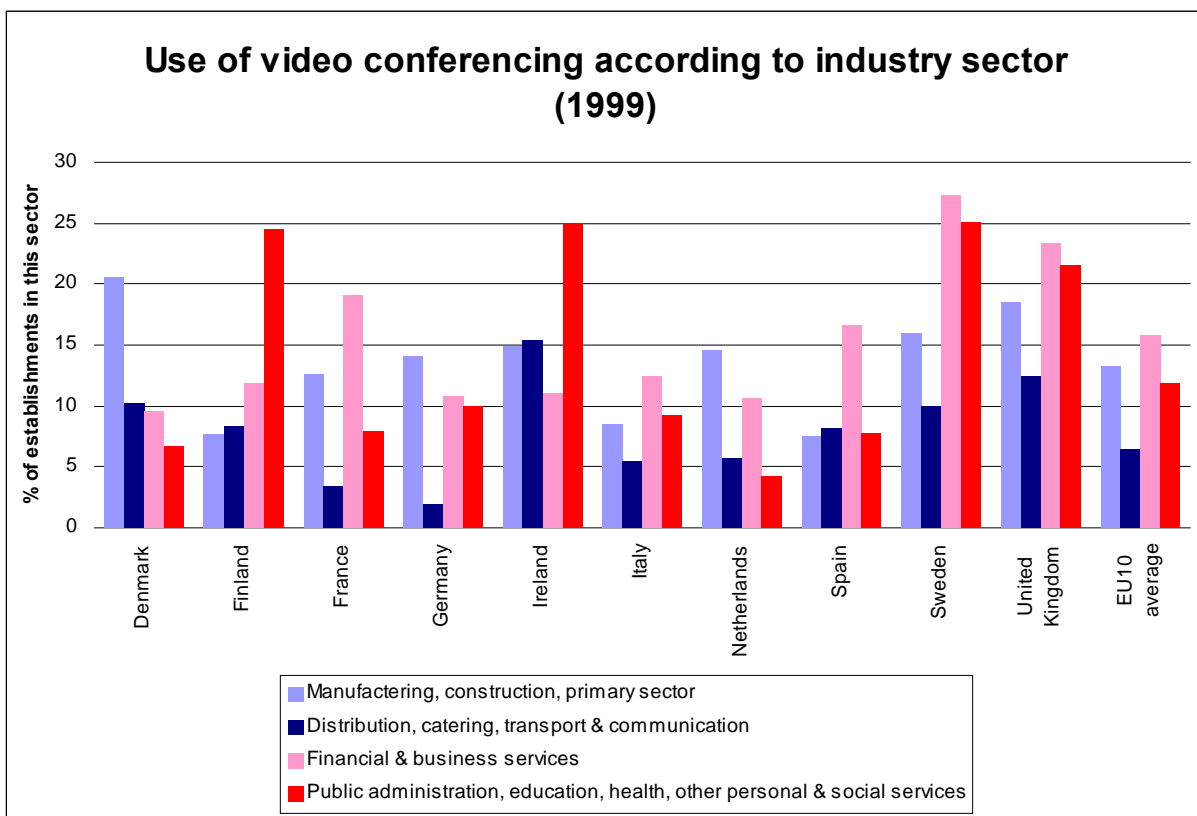
### 1.4.3 Differentiation by sector

Video conferencing plays a secondary role in the distribution, transport and communications sector - especially in Germany - whereas 13% of European and 14% of German establishments in the manufacturing trade are users.

TABLE 22: ACCESS TO VIDEO CONFERENCING BY SECTOR (IN %)

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	20.6	11.9	10.2	6.7	9.5	12.2	6.7	7.3
<b>Finland</b>	7.6	12.2	8.3	9.9	11.9	5.6	24.5	13.1
<b>France</b>	12.6	17.6	3.4	10.1	19.1	11.3	7.9	8.9
<b>Germany</b>	14.0	8.9	1.9	10.9	10.8	6.1	9.9	17.6
<b>Ireland</b>	14.9	16.1	15.4	10.3	11.1	22.5	25.0	12.6
<b>Italy</b>	8.4	9.0	5.5	8.7	12.4	11.9	9.3	14.9
<b>Netherlands</b>	14.6	7.9	5.7	2.9	10.7	8.9	4.2	10.0
<b>Spain</b>	7.5	17.6	8.2	14.1	16.7	26.2	7.8	15.9
<b>Sweden</b>	16.0	10.8	10.0	3.1	27.3	20.0	25.1	14.2
<b>U.K.</b>	18.5	17.2	12.4	17.9	23.3	22.1	21.6	16.8
<b>EUR10</b>	13.2	12.9	6.4	11.8	15.8	12.4	11.8	14.5

Base: All establishments (n = 4,158), weighted



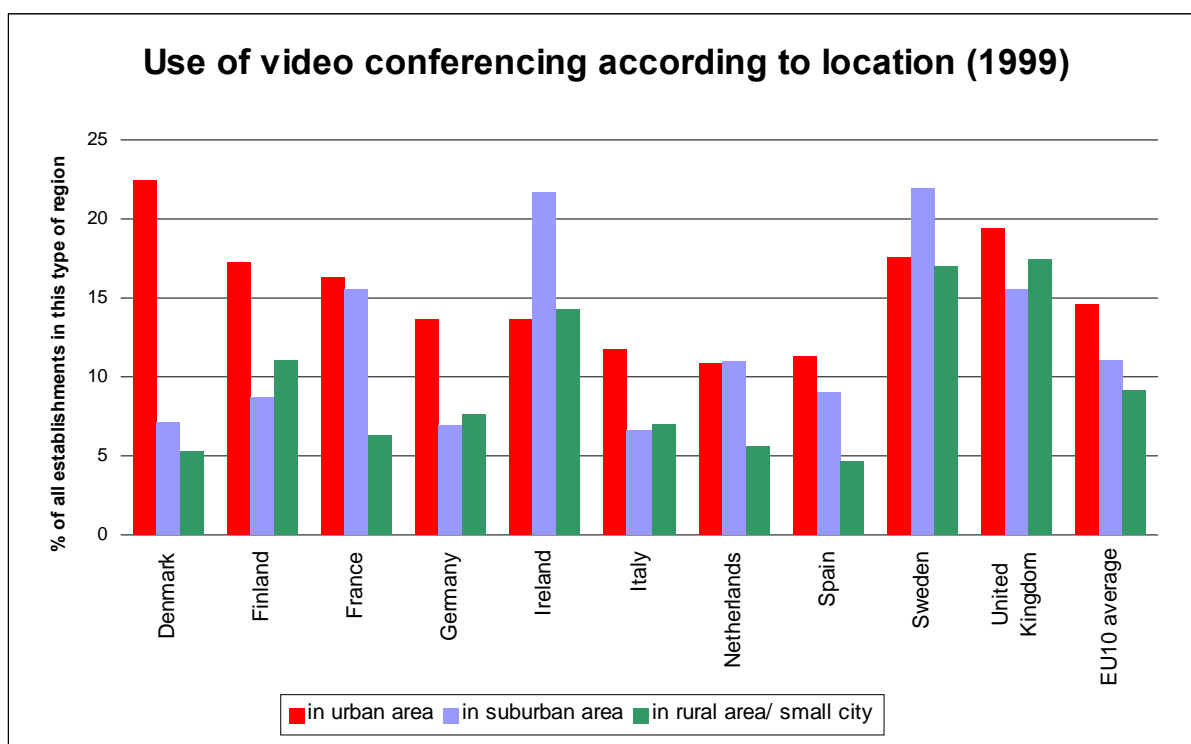
#### 1.4.4 Differentiation by establishment location

In Germany video conferencing is used by a far larger proportion of establishments located in cities than is the case in peripheral and rural areas. The “distance-shrinking” characteristics of this technology are, according to this result, not used to any large extent to compensate for disadvantages of decentral locations. Instead, according to observations, establishments in central locations in particular use video conferencing to communicate with establishments in other central locations.

TABLE 23: USE OF VIDEO CONFERENCING BY ESTABLISHMENT LOCATION (IN %)

	in large cities		in suburban area		in rural area or small city	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
Denmark	22.4	8.0	7.1	11.1	5.3	6.9
Finland	17.2	10.9	8.7	1.1	11.1	13.3
France	16.3	13.9	15.5	14.6	6.3	10.9
Germany	13.6	11.0	6.9	11.6	7.7	9.2
Ireland	13.6	19.6	21.7	23.2	14.3	9.0
Italy	11.7	9.9	6.6	13.4	7.0	7.9
Netherlands	10.9	13.0	11.0	6.1	5.6	6.4
Spain	11.3	17.8	9.0	18.9	4.7	13.7
Sweden	17.6	8.3	21.9	12.1	17.0	15.2
U.K.	19.4	25.0	15.5	14.0	17.5	16.7
EUR10	14.6	14.3	11.1	13.3	9.1	11.3

Base: All establishments (n = 4,158), weighted



## 1.5 Groupware Systems

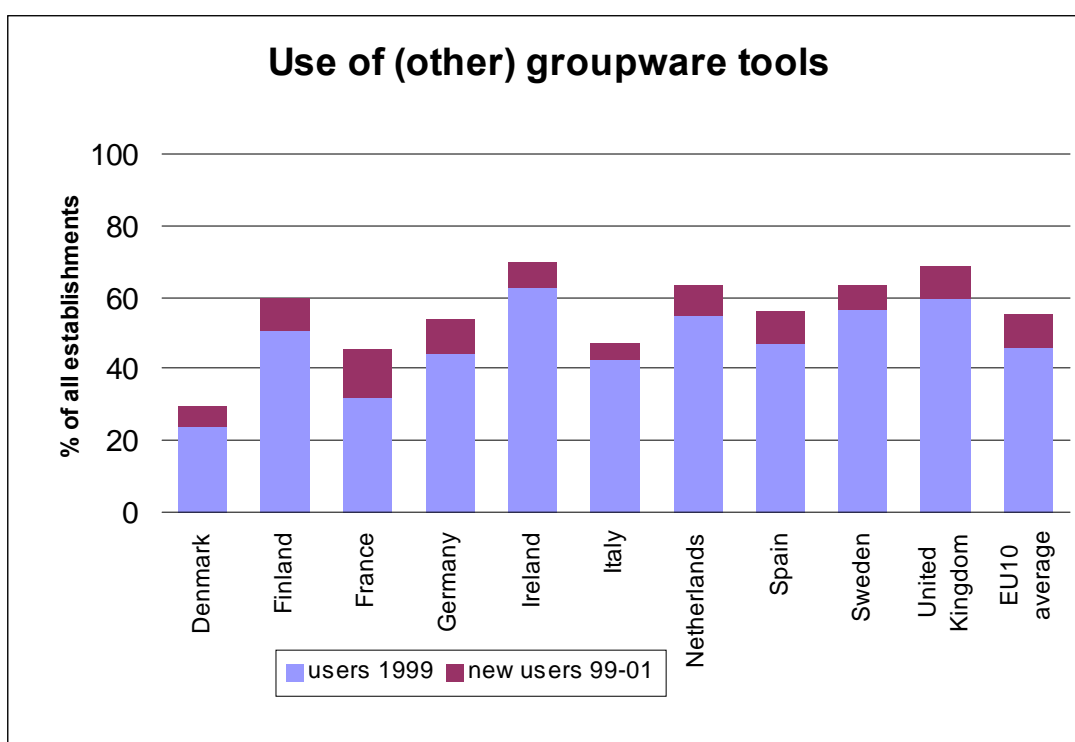
Groupware systems such as Lotus Notes and Microsoft Exchange enjoy very different levels of popularity in the various European countries. While they play only a very small role (only a quarter of establishments use groupware tools) in Denmark (which otherwise shows very high penetration rates with regard to information technology), they are very widespread in the

United Kingdom and Ireland as well as in Sweden and the Netherlands. Further growth over the next 2 years will be moderate with much smaller growth rates than with for example the intranets.

**TABLE 24: USE OF (OTHER) GROUPWARE TOOLS (IN %)**

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
Denmark	24.1	5.3	29.4	10	10
Finland	51.1	8.4	59.5	5	5
France	31.9	13.6	45.5	9	9
Germany	44.0	9.7	53.7	7	7
Ireland	62.4	7.7	70.1	1	1
Italy	42.5	4.2	46.7	8	8
Netherlands	55.0	8.0	63.0	4	4
Spain	46.9	9.2	56.1	6	6
Sweden	56.3	6.9	63.2	3	3
U.K.	59.6	9.1	68.7	2	2
EUR10	46.0	9.1	55.1		

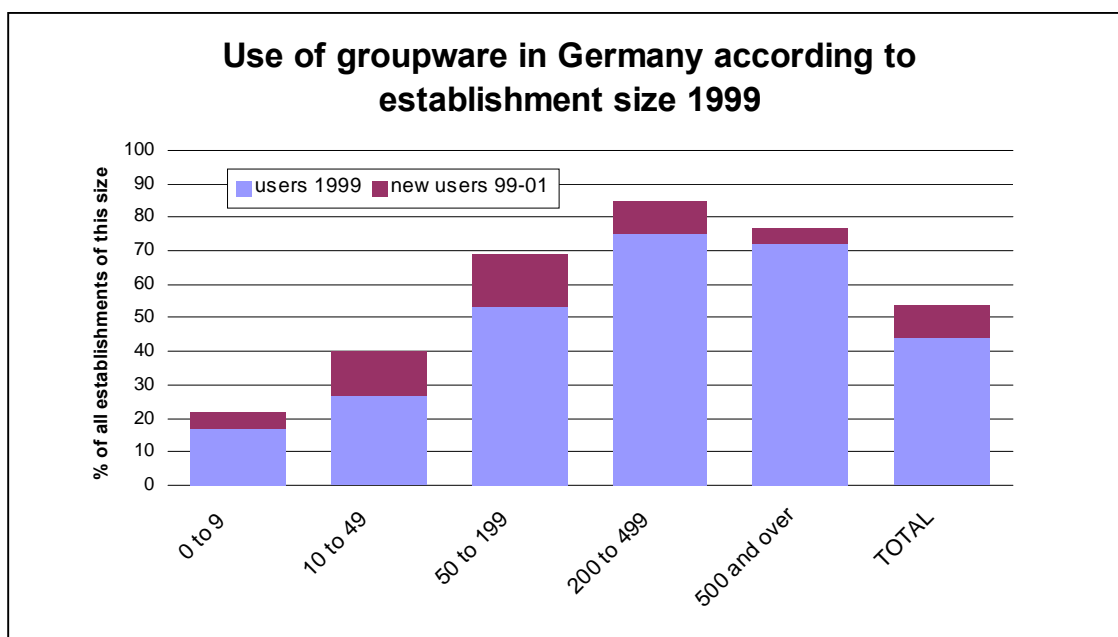
Base: All establishments (n = 4,158), weighted



**TABLE 25: USE OF (OTHER) GROUPWARE TOOLS IN GERMANY BY ESTABLISHMENT SIZE 1999 (IN %)**

	0 to 9	10 to 49	50 to 199	200 to 499	500 and more	TOTAL
<b>users 1999</b>	16.5	26.9	53.4	75.3	72.3	44.0
<b>additional users 1999-2001</b>	5.1	13.2	15.6	9.4	4.4	9.7

Base: All establishments in Germany (n=501)



## 1.6 Call centers

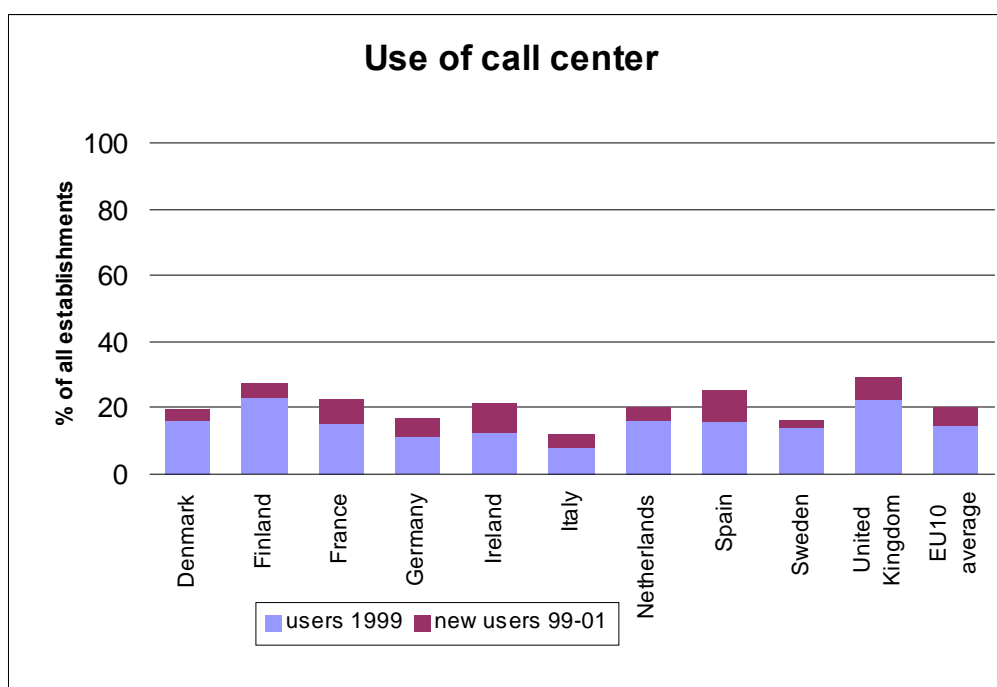
A call center can either be an in-house unit which delivers services to other departments as part of the same establishment or at least within the same company, or it delivers services to third parties as an independent organisation. The ECaTT survey does not aim to find out how many call centers exist but measures the proportion of establishments which actually use call center services. Such usage demonstrates strong customer orientation and at the same time automatic integration of customer service into the company's internal processes. Call centers make intensive use of new information technologies (eg CTI, intelligent net). This is why intensive usage of call centers can represent a possible supplementation as well as an alternative to client contact via the Internet or other online services.

TABLE 26: USE OF CALL CENTERS (IN %)

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
Denmark	16.2	3.6	19.8	4	7
Finland	23.0	4.3	27.3	1	2
France	15.0	7.3	22.3	6	4
Germany	11.5	5.2	16.7	9	8
Ireland	12.5	8.8	21.3	8	5
Italy	7.8	3.8	11.6	10	10
Netherlands	16.3	4.0	20.3	3	6
Spain	16.0	9.3	25.3	5	3
Sweden	14.1	2.3	16.4	7	9
U.K.	22.4	6.6	29.0	2	1
EUR10	14.7	5.8	20.5		

Base: All establishments (n = 4,158), weighted

15% of all establishments in Europe use a call center. The expected growth over the next 2 years is weaker than in the aforementioned technologies. By 2001 the proportion of users will have increased to slightly above 20%. European leaders are Finland where the telephone as a medium for client communication has gained a lot in importance with the enormous spread of mobile phones, and the United Kingdom which according to other studies has the highest amount of call center workplaces in Europe. Ireland and Spain are the most dynamic markets for call center services.



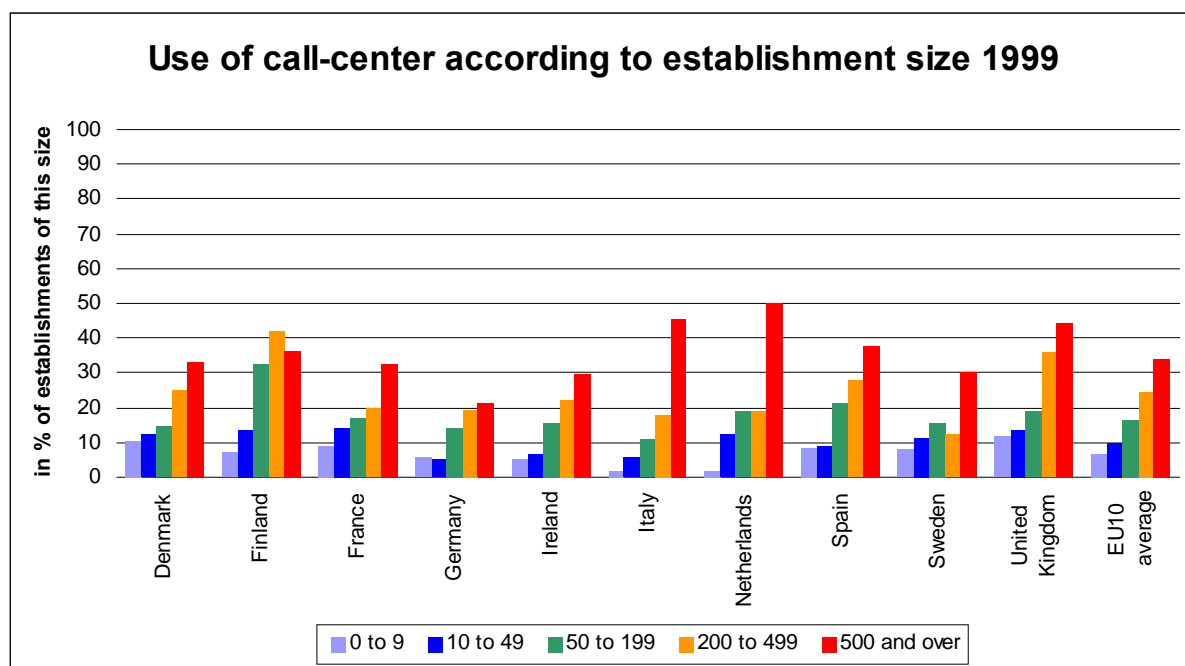
### 1.6.1 Differentiation by establishment size

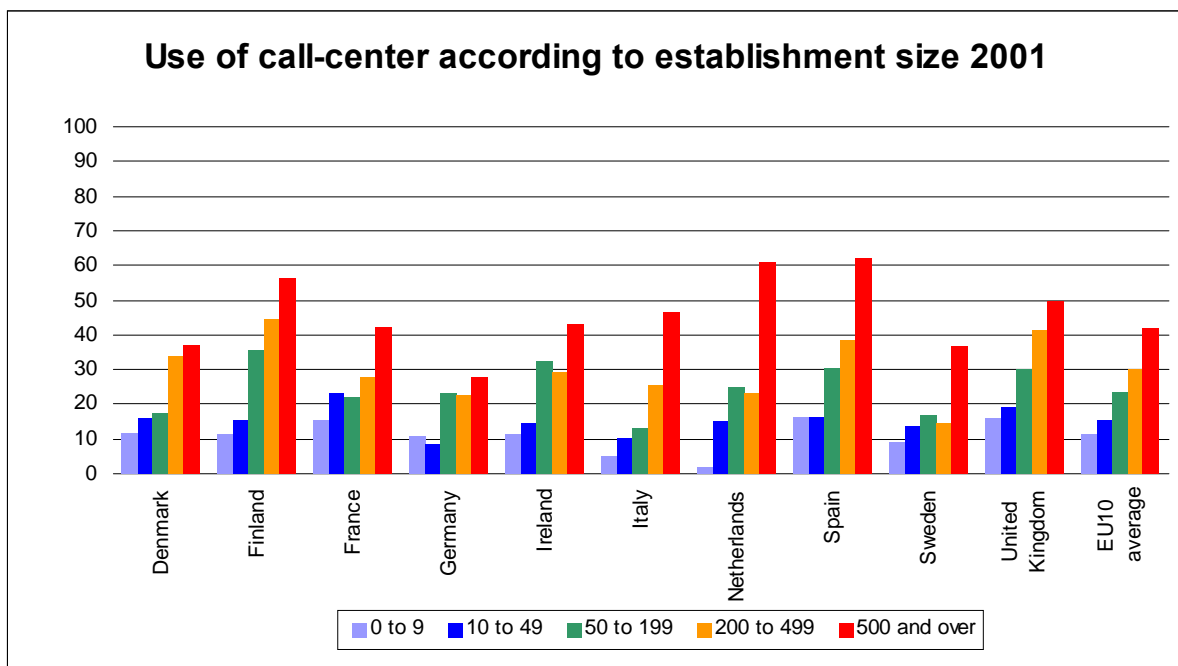
Due to quite considerable overheads, relative costs for call center services decrease with order volume. It is therefore not surprising that the likelihood of an establishment using call center services increases with establishment size.

TABLE 27: CALL CENTER USE BY ESTABLISHMENT SIZE (IN %)

	0 to 9		10 to 49		50 to 199		200 to 499		500 and more	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
Denmark	10.4	1.2	12.3	3.6	14.6	2.6	24.9	8.7	32.9	4.0
Finland	7.1	4.3	13.8	1.6	32.4	3.1	42.0	2.7	36.1	20.4
France	8.9	6.5	14.3	8.6	16.8	5.3	19.6	8.2	32.6	9.5
Germany	5.7	4.9	5.0	3.3	14.2	8.8	19.2	3.4	21.4	6.2
Ireland	5.4	5.8	6.8	7.8	15.6	16.9	22.2	6.8	29.5	13.9
Italy	2.1	3.2	5.5	4.9	11.0	2.2	18.1	7.3	45.3	1.4
Netherlands	2.1	0.0	12.3	2.5	18.8	6.3	18.9	4.1	50.0	11.1
Spain	8.3	8.2	8.9	7.5	21.4	8.9	28.0	10.5	37.6	24.4
Sweden	7.8	0.9	11.1	2.6	15.8	1.3	12.2	2.3	30.1	6.4
U.K.	11.7	4.4	13.5	5.7	18.9	11.0	36.0	5.3	44.5	5.2
EUR10	6.5	4.8	10.0	5.4	16.6	7.0	24.4	5.5	33.9	7.7

Base: All establishments (n = 4,158), weighted





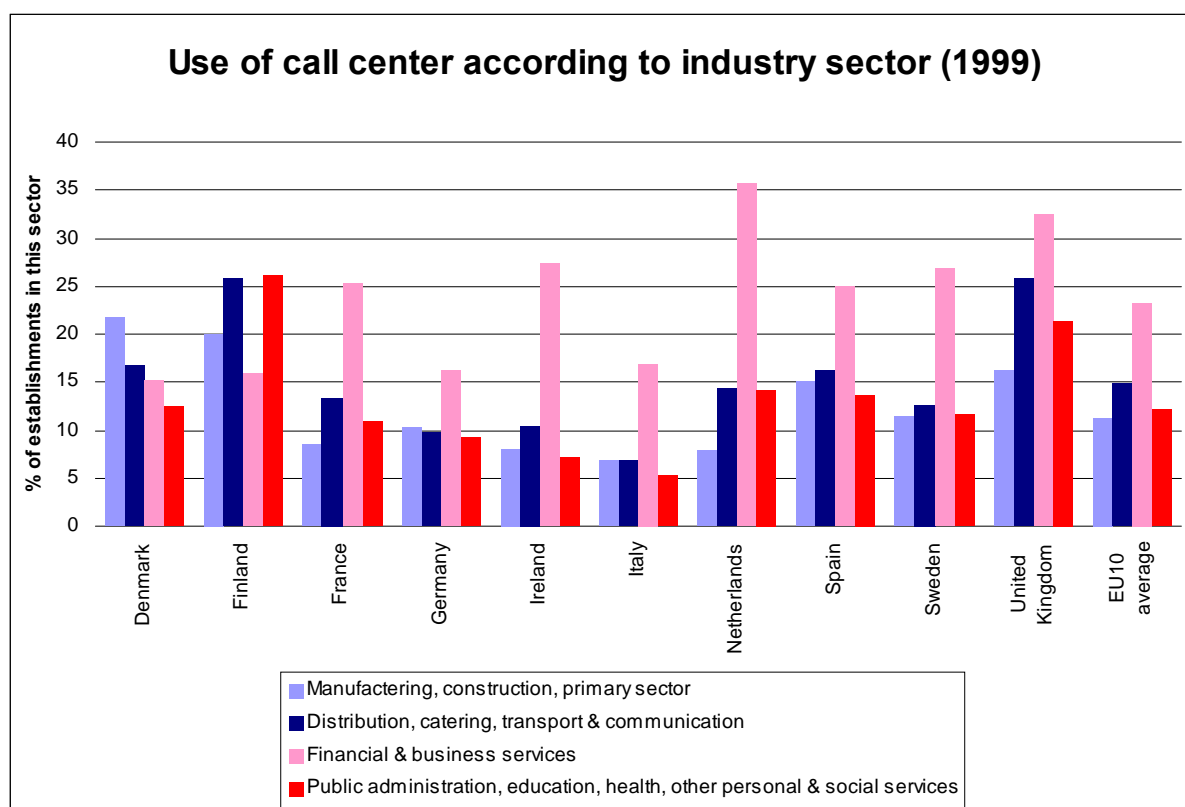
### 1.6.2 Differentiation by sector

An above average proportion of establishments from the business and financial services sector use call centers (exceptions: Finland and Denmark) in order to optimise their client interface. In Germany, by 2001, around 20% of all establishments from this sector will use the services of internal or external call centers, for the EU this figure will be 30% and in the Netherlands, the leading country, even 45%.

TABLE 28: CALL CENTER USE BY SECTOR (IN %)

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	21.7	3.5	16.7	6.7	15.2	0.0	12.4	3.4
<b>Finland</b>	20.0	1.5	25.8	7.2	15.9	0.0	26.1	5.6
<b>France</b>	8.5	5.2	13.3	7.7	25.3	9.3	11.0	6.3
<b>Germany</b>	10.2	5.4	9.8	5.7	16.3	4.0	9.2	4.7
<b>Ireland</b>	8.0	10.6	10.4	10.6	27.3	5.0	7.1	5.7
<b>Italy</b>	6.9	4.1	6.9	4.2	17.0	6.4	5.3	1.5
<b>Netherlands</b>	7.9	2.2	14.3	2.9	35.7	8.9	14.2	3.3
<b>Spain</b>	15.1	7.1	16.3	8.6	24.9	12.8	13.6	13.1
<b>Sweden</b>	11.5	0.0	12.7	2.9	26.8	2.4	11.7	3.6
<b>U.K.</b>	16.3	5.6	25.8	5.7	32.5	5.2	21.4	8.0
<b>EUR10</b>	11.3	5.1	14.9	6.2	23.2	6.3	12.2	5.3

Base: All establishments (n = 4,158), weighted



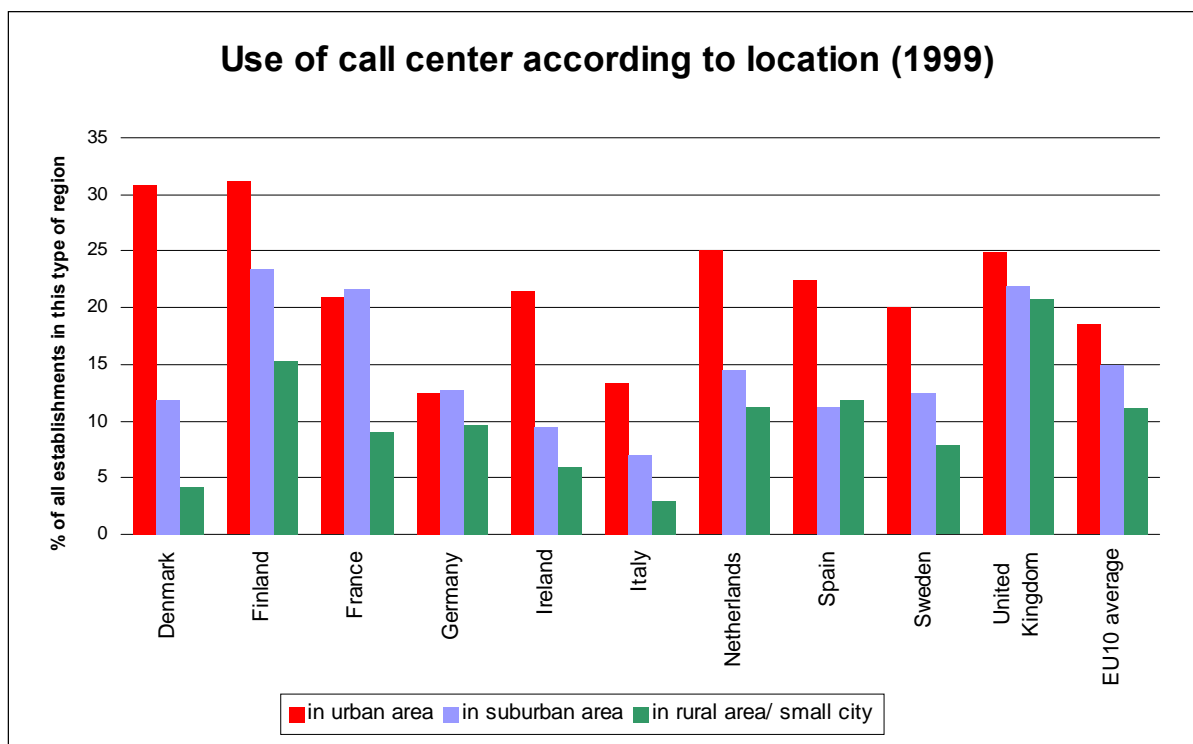
### 1.6.3 Differentiation by establishment location

TABLE 29: USE OF CALL CENTERS BY ESTABLISHMENT LOCATION (IN %)

	in large cities		in suburban area		in rural area or small city	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
Denmark	30.8	3.8	11.9	3.7	4.2	3.4
Finland	31.1	6.0	23.4	7.3	15.3	2.0
France	20.9	7.2	21.6	4.8	9.0	8.4
Germany	12.5	4.0	12.8	10.6	9.6	2.6
Ireland	21.5	8.1	9.5	6.1	6.0	11.2
Italy	13.4	1.5	6.9	3.8	3.0	6.3
Netherlands	25.0	7.6	14.6	4.9	11.2	0.8
Spain	22.4	14.7	11.3	5.7	11.9	4.7
Sweden	20.0	1.9	12.4	2.4	7.8	2.9
U.K.	24.9	8.8	22.0	7.7	20.8	3.8
EUR10	18.6	6.3	15.0	6.6	11.1	4.7

Base: All establishments (n = 4,158), weighted

Establishments in urban locations are more likely to use call centers than those in rural locations. However, in Germany and the United Kingdom this relationship is much weaker than in the other countries.



## 2 Use of the Internet or other online services for Electronic Commerce

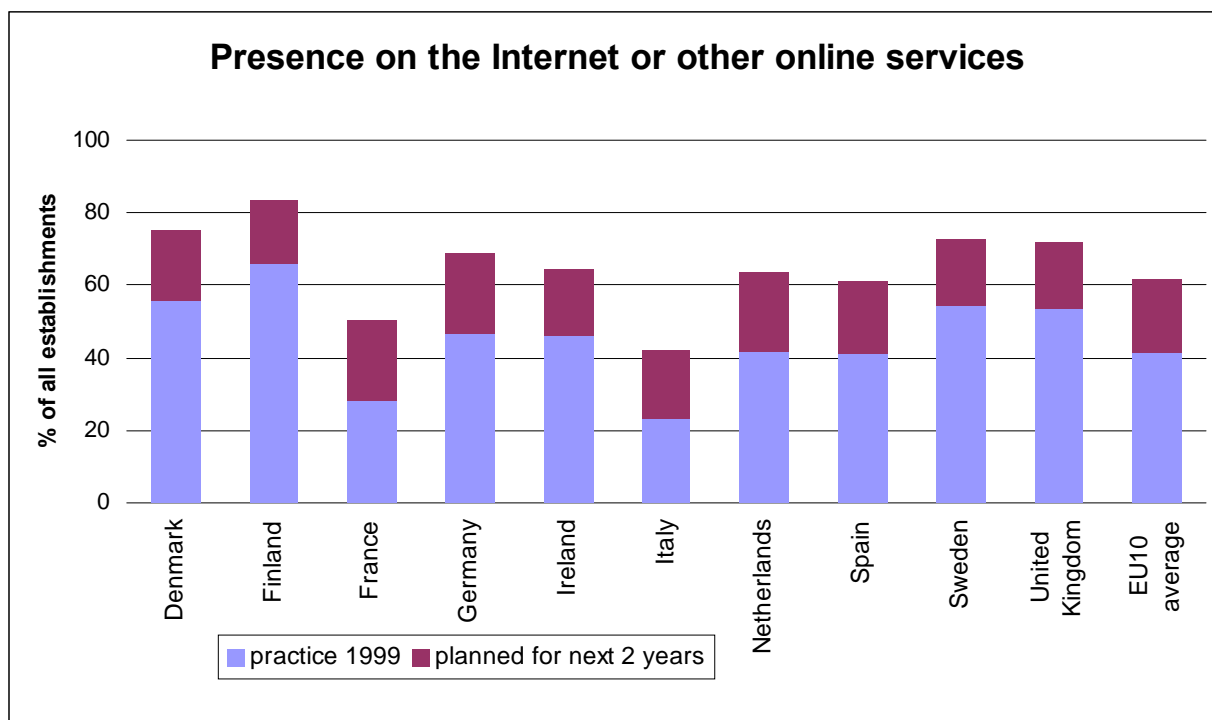
### 2.1 Presence on the Internet or other online service

Around 41% of EUR10 establishments offer information on the Internet. The forerunner countries are ahead again with more than 50% or even 60%. Germany follows with an above average rate of 47%. In France and Italy only around a quarter of establishments fall into this category. Taking current plans into consideration, by 2001 around  $\frac{3}{4}$  of establishments in the Scandinavian countries (in Finland more than 80%) will have a presence on the Internet. In Germany it will be at least  $\frac{2}{3}$  of establishments. This puts Germany just behind the United Kingdom but clearly ahead of all other larger EU countries.

TABLE 30: PRESENCE ON THE INTERNET OR OTHER ONLINE SERVICE (IN %)

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
Denmark	55.6	19.8	75.4	2	2
Finland	66.1	17.6	83.7	1	1
France	28.0	22.5	50.5	9	9
Germany	46.8	21.9	68.7	5	5
Ireland	46.1	18.3	64.4	6	6
Italy	23.3	18.9	42.2	10	10
Netherlands	41.7	22.0	63.7	7	7
Spain	41.5	19.9	61.4	8	8
Sweden	54.2	18.4	72.6	3	3
U.K.	53.4	18.5	71.9	4	4
EUR10	41.4	20.4	61.8		

Base: All establishments (n = 4,158), weighted

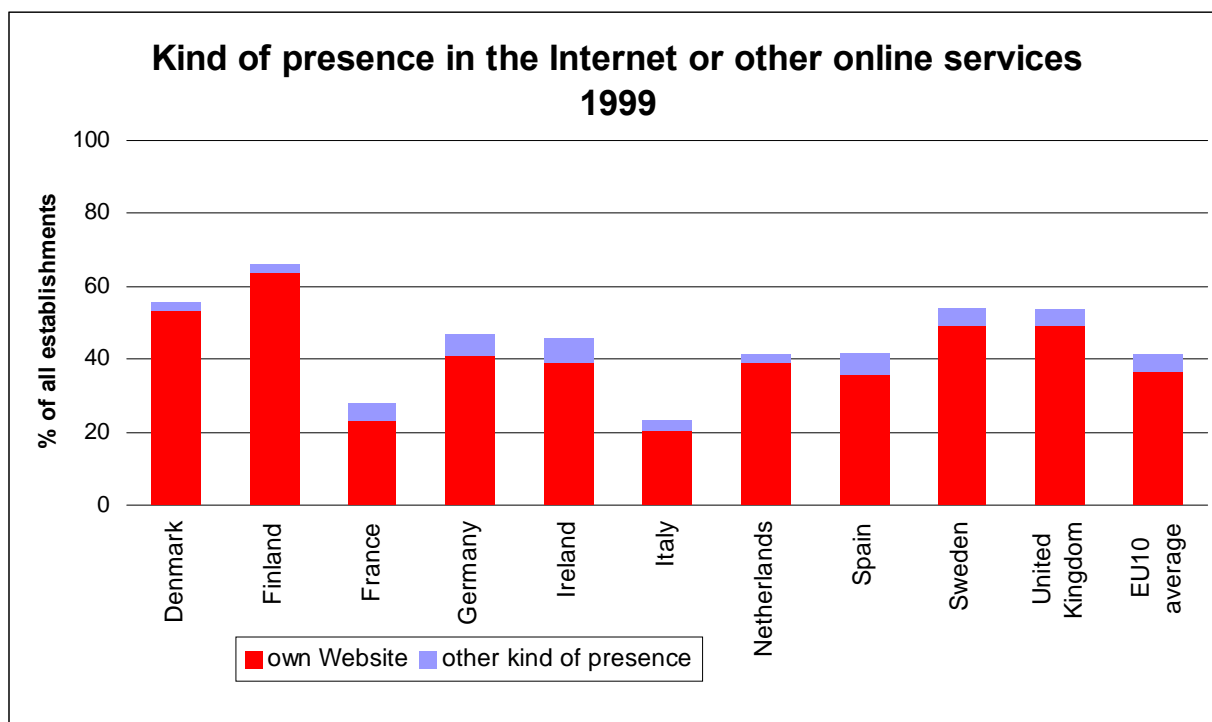


The following table/illustration shows the type of presence on the Internet (or another online service such as T-Online): These are mainly websites (or equivalents in other online services). Alternatives such as presence on a shared page (eg electronic shopping mall) which is run by a third party, or the inclusion in an online directory of suppliers play a secondary role or are used in addition to an own website.

**TABLE 31: TYPE OF PRESENCE ON THE INTERNET OR OTHER ONLINE SERVICE 1999 (IN %)**

	website	only other kind of presence	ranking (website)
<b>Denmark</b>	53.4	2.2	2
<b>Finland</b>	63.7	2.4	1
<b>France</b>	23.0	5.0	9
<b>Germany</b>	41.1	5.7	5
<b>Ireland</b>	39.0	7.1	7
<b>Italy</b>	20.4	2.9	10
<b>Netherlands</b>	39.0	2.7	6
<b>Spain</b>	35.6	5.9	8
<b>Sweden</b>	49.3	4.9	3
<b>U.K.</b>	49.2	4.2	4
<b>EUR10</b>	36.8	4.6	

Base: All establishments (n = 4,158), weighted



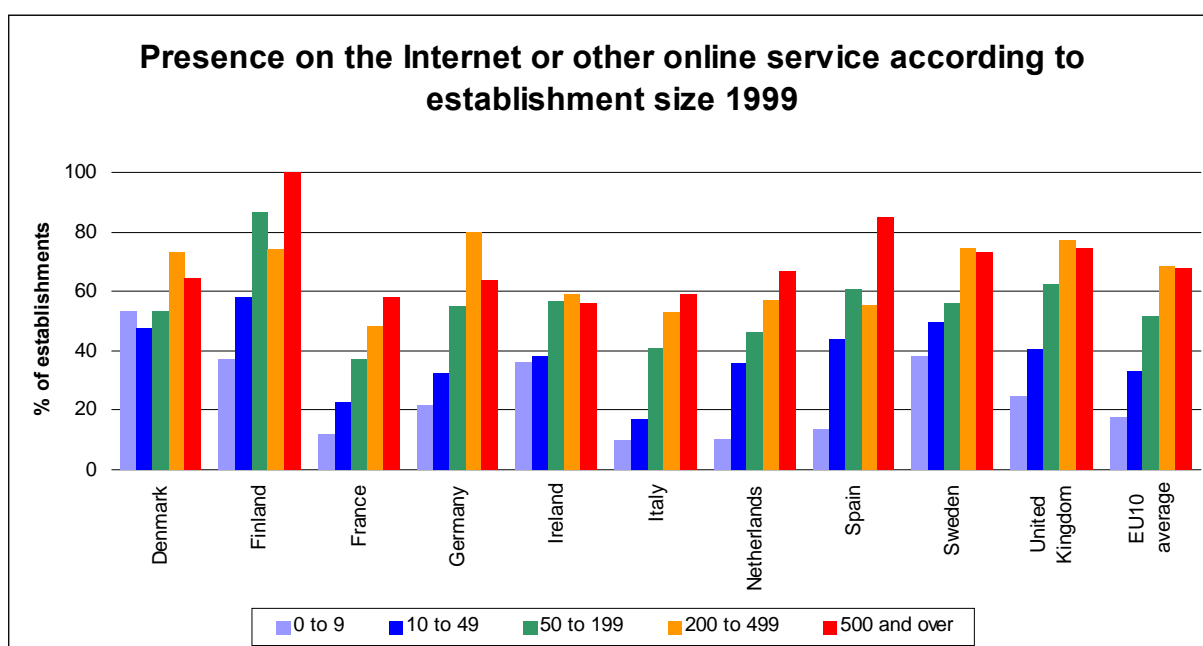
### 2.1.1 Differentiation by establishment size

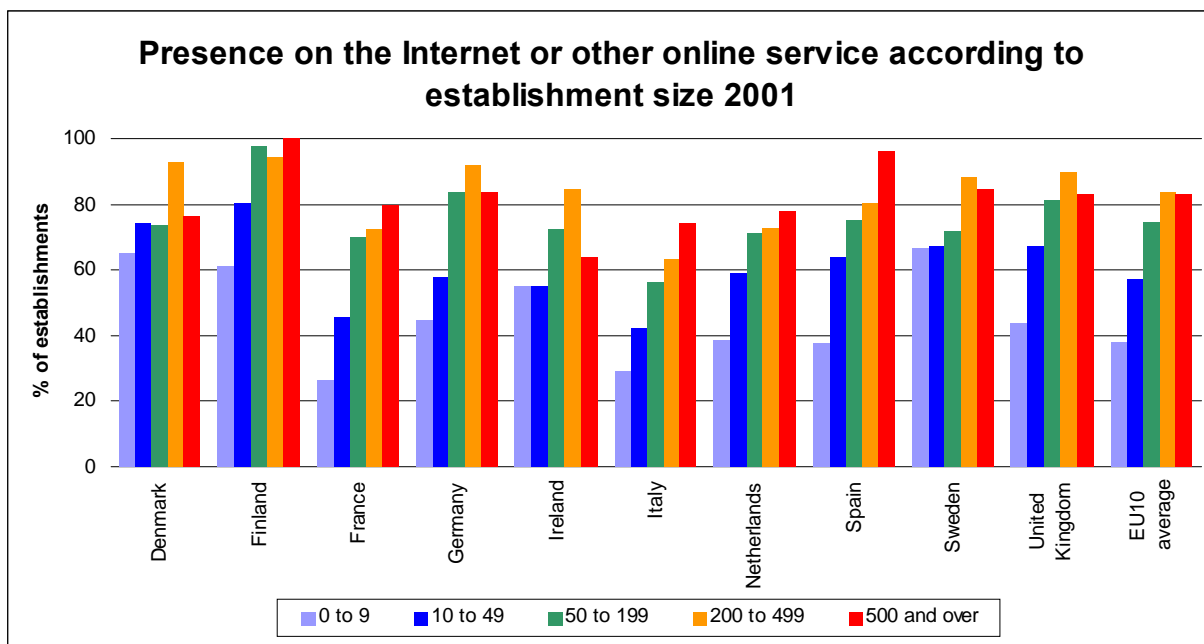
Over the next years, in Internet presence amongst the various establishment size categories will partly disappear as a large proportion of small establishments are already planning their appearance on the web. It is surprising that even by 2001 - at least according to decision makers' current plans - more than 15% of EUR10 establishments with more than 200 employees will still not be represented on the Internet.

**TABLE 32: PRESENCE ON THE INTERNET OR OTHER ONLINE SERVICES BY ESTABLISHMENT SIZE (IN %)**

	0 to 9		10 to 49		50 to 199		200 to 499		500 and more	
	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001
<b>Denmark</b>	53.4	11.8	47.6	26.7	53.3	20.5	73.1	19.9	64.4	12.0
<b>Finland</b>	37.3	23.9	58.1	22.0	86.7	10.9	74.1	20.2	100.0	0.0
<b>France</b>	11.8	14.7	22.6	23.1	37.2	32.8	48.0	24.3	58.0	21.6
<b>Germany</b>	21.6	23.2	32.5	25.4	54.7	28.7	79.6	12.4	63.7	20.1
<b>Ireland</b>	36.1	18.8	38.6	16.3	56.3	15.8	59.1	25.2	55.8	7.9
<b>Italy</b>	9.8	19.2	17.3	25.1	41.0	15.3	53.0	10.6	59.3	15.0
<b>Netherlands</b>	10.6	27.7	35.8	23.5	46.3	25.0	56.8	16.2	66.7	11.1
<b>Spain</b>	13.7	24.0	44.3	19.6	60.8	14.2	55.6	24.9	84.9	11.3
<b>Sweden</b>	38.6	28.1	49.7	17.4	56.1	15.8	74.8	13.4	73.0	11.5
<b>U.K.</b>	24.9	18.7	40.4	26.6	62.2	18.9	77.3	12.2	74.8	8.5
<b>EUR10</b>	17.5	20.3	33.1	24.2	51.6	23.0	68.4	15.3	68.1	14.9

Base: All establishments (n = 4,158), weighted





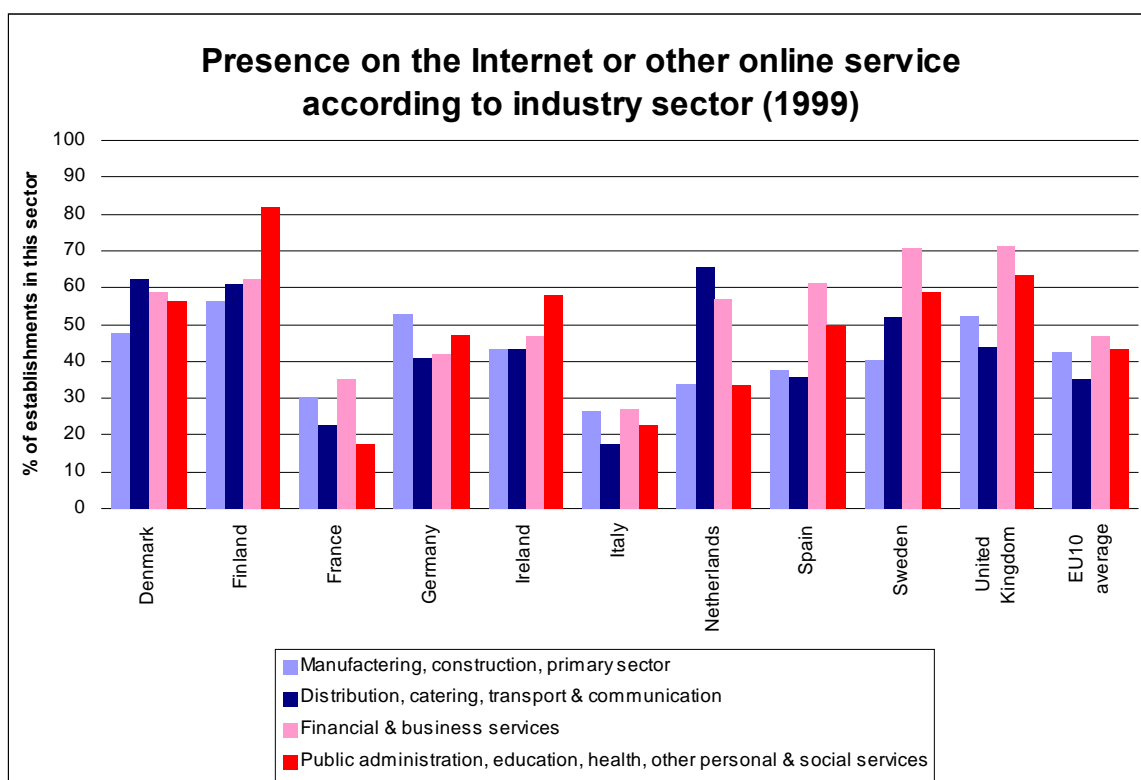
### 2.1.2 Differentiation by sector

Hardly any differences exist between industry sectors, either in passive use of the Internet (see above) or in active presence on the Internet or other online service (eg T-Online, Minitel). In Germany the proportion of manufacturing industry establishments which are active online is even slightly higher than that of the business and financial services industry and commerce. In view of the importance of industry for Germany's economic system this result must be regarded positively from a German point of view. In the United Kingdom on the other hand the manufacturing sector clearly falls behind the business and financial services sectors which might derive from the comparative weakness of this sector of the British economy.

TABLE 33: PRESENCE ON THE INTERNET OR OTHER ONLINE SERVICE BY SECTOR (IN %)

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
Denmark	47.8	24.2	62.3	16.3	58.6	17.1	56.3	20.0
Finland	56.3	26.2	60.8	15.7	62.3	9.0	82.0	13.4
France	30.2	21.8	22.8	18.7	35.2	27.1	17.6	23.6
Germany	52.9	17.3	40.9	26.2	42.0	16.0	47.4	32.9
Ireland	43.4	18.9	43.4	11.5	46.6	24.0	58.1	17.2
Italy	26.8	22.7	17.7	14.5	26.9	16.0	22.6	19.7
Netherlands	33.7	25.8	65.7	11.4	57.1	21.4	33.3	22.5
Spain	37.9	21.2	35.7	21.8	61.3	14.4	49.8	16.8
Sweden	40.4	28.8	52.0	16.2	70.9	9.2	58.6	15.5
U.K.	52.2	19.0	43.7	21.4	71.2	11.6	63.6	14.8
EUR10	42.4	20.5	35.3	20.3	46.6	18.2	43.3	22.1

Base: All establishments (n = 4,158), weighted



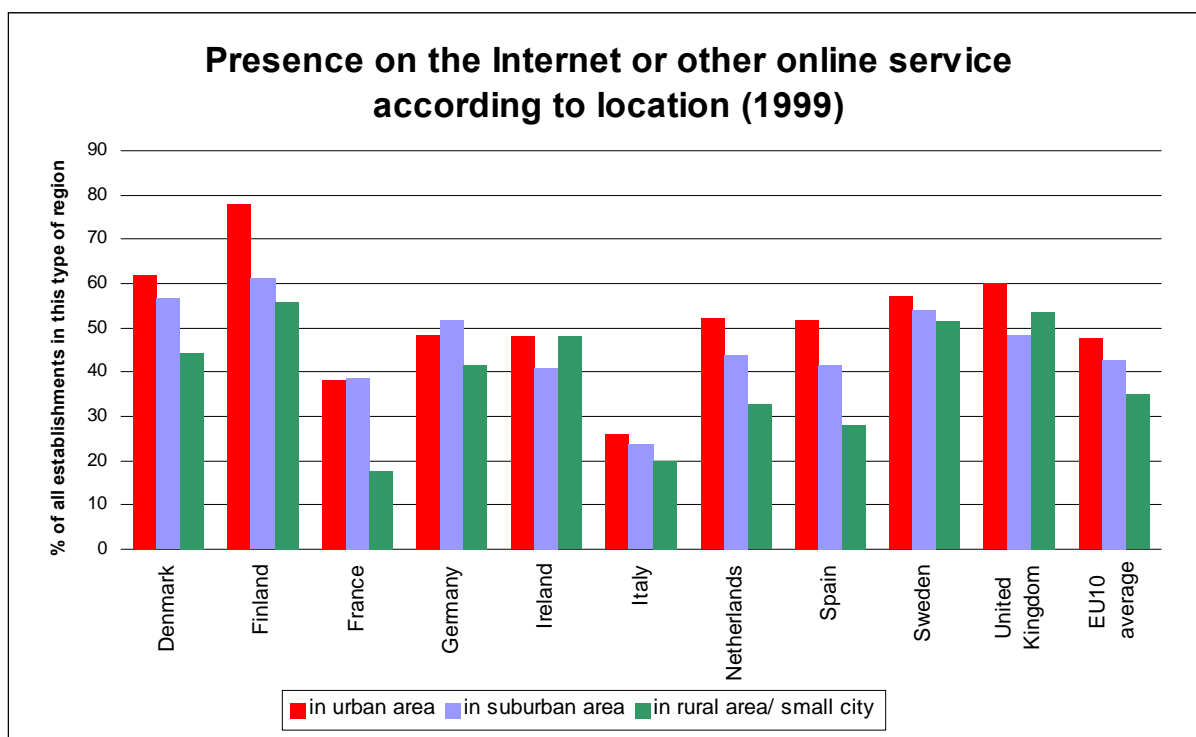
### 2.1.3 Differentiation by establishment location

As for online presence an urban-rural-contrast is hardly discernible in Germany, in other countries (France, Spain, Netherlands) however it is quite marked.

TABLE 34: PRESENCE ON THE INTERNET OR OTHER ONLINE SERVICE BY ESTABLISHMENT LOCATION (IN %)

	in large cities		in suburban area		in rural area or small city	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	62.0	16.5	56.6	21.1	44.4	22.2
<b>Finland</b>	78.1	9.7	61.3	24.9	55.9	23.5
<b>France</b>	38.4	22.7	38.7	23.4	17.7	22.0
<b>Germany</b>	48.4	20.1	51.9	21.7	41.5	23.9
<b>Ireland</b>	47.9	22.8	40.8	28.6	47.9	7.0
<b>Italy</b>	25.9	23.1	23.7	18.4	19.9	14.9
<b>Netherlands</b>	52.2	21.7	43.9	22.0	32.8	21.6
<b>Spain</b>	51.9	18.2	41.6	16.7	28.1	24.9
<b>Sweden</b>	56.9	21.3	53.9	13.7	51.3	21.0
<b>U.K.</b>	59.9	15.5	48.4	21.4	53.8	17.8
<b>EUR10</b>	47.5	19.8	42.8	20.6	34.9	20.9

Base: All establishments (n = 4,158), weighted



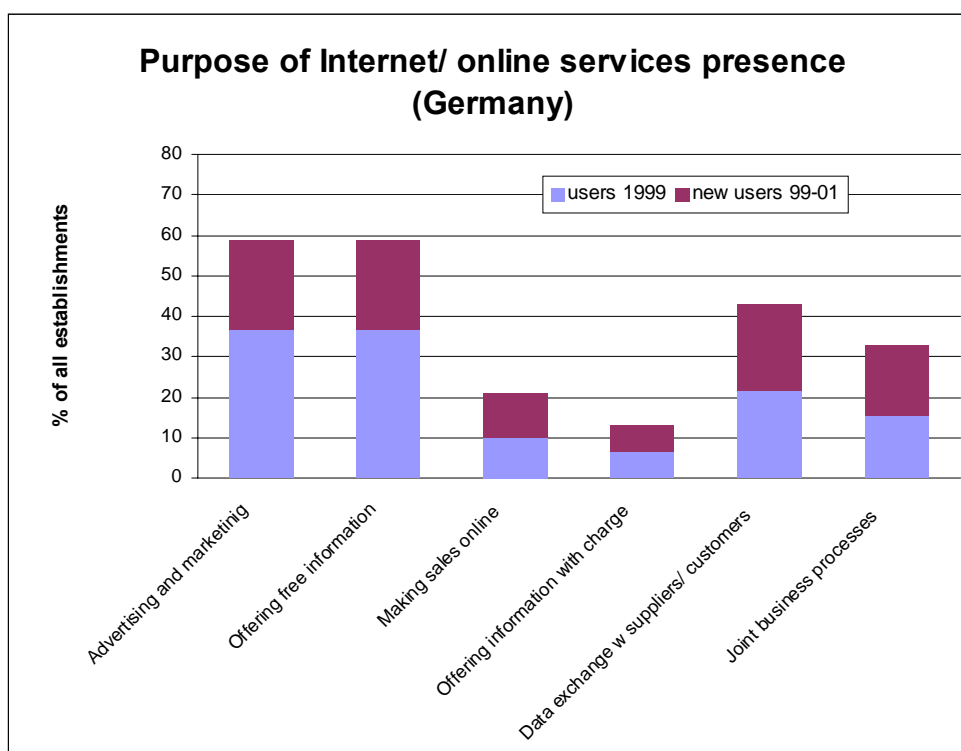
## 2.2 Purpose of activities on the Internet or other online services

What expectations do organisations or establishments have of their online presence? The answers to this question will help explain which current forms of E-Commerce are mainly practised. Furthermore they will show - starting from a model of a continuous integration of online activities into a business' processes - which stage of E-Commerce application the various countries are currently at.

TABLE 35: PURPOSE OF THE PRESENCE ON THE INTERNET OR OTHER ONLINE SERVICE (GERMANY) (IN %)

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
<b>Advertising and marketing</b>	36.6	22.1	58.7	1	1
<b>Free information</b>	36.5	22.0	58.5	2	2
<b>Making-sales online</b>	9.8	11.2	21.0	5	5
<b>Offering information with charge</b>	6.4	6.7	13.1	6	6
<b>Data-Exchange with suppliers / customers</b>	21.6	21.5	43.1	3	3
<b>Joint business processes</b>	15.2	17.7	32.9	4	4

Base: All establishments in Germany (n = 501)



At a European level “advertising and marketing” and “free information supply” are clearly targeted most often: by roughly a third of all establishments. Less important are “data ex-

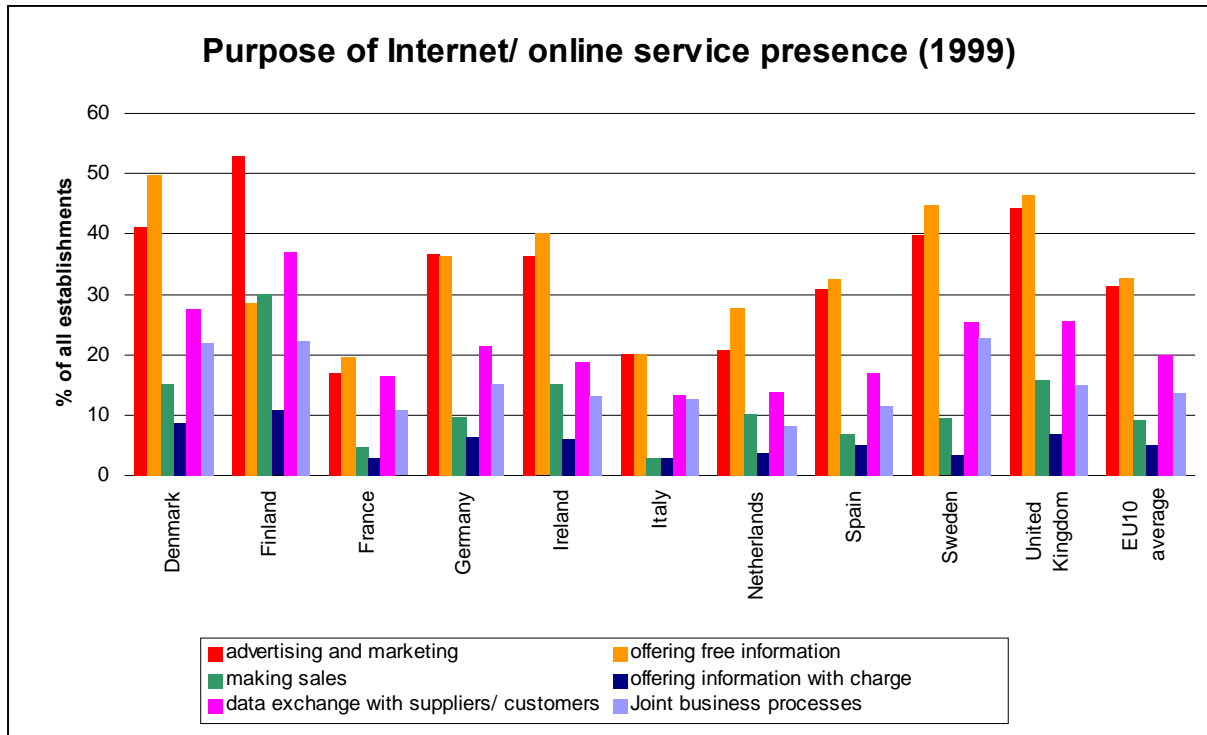
change with supplier and client establishments" (22%) and "joint business processes" (15%). 10% are online in order to sell and 6% offer chargeable information for downloading.

Over the next 2 years it is not only the proportion of establishments using online media for marketing purposes or supply of information which will increase significantly. At the same time more and more establishments will implement high quality applications. In Germany, growth rates for data exchange between supplier and client establishments, joint business processes as well as online sales and supply of chargeable downloads continuously are 100% or more. By 2001, 21% of all German establishments will sell online and 13% will have income from services which they even deliver online - information which can immediately be transferred via data connections.

**TABLE 36: PURPOSE OF PRESENCE ON THE INTERNET OR OTHER ONLINE SERVICES (IN %)**

	advertising and market- ing	free informa- tion	making sales online	offering infor- mation with charge	data exchange with suppliers / customers	joint business processes
<b>Denmark</b>	41.1	49.7	15.2	8.6	27.6	22.1
<b>Finland</b>	52.9	28.5	30.1	10.8	36.9	22.3
<b>France</b>	17.1	19.6	4.7	3.0	16.6	10.8
<b>Germany</b>	36.6	36.5	9.8	6.4	21.6	15.2
<b>Ireland</b>	36.3	40.2	15.2	6.1	18.9	13.1
<b>Italy</b>	20.2	20.1	2.9	2.8	13.4	12.6
<b>Netherlands</b>	20.7	27.7	10.3	3.7	14.0	8.0
<b>Spain</b>	31.0	32.4	6.8	5.1	17.1	11.5
<b>Sweden</b>	39.9	44.9	9.5	3.5	25.4	22.9
<b>U.K.</b>	44.2	46.3	15.8	6.7	25.6	15.0
<b>EUR10</b>	31.5	32.7	9.3	5.1	19.9	13.7

**Base: All establishments (n = 4,158), weighted**



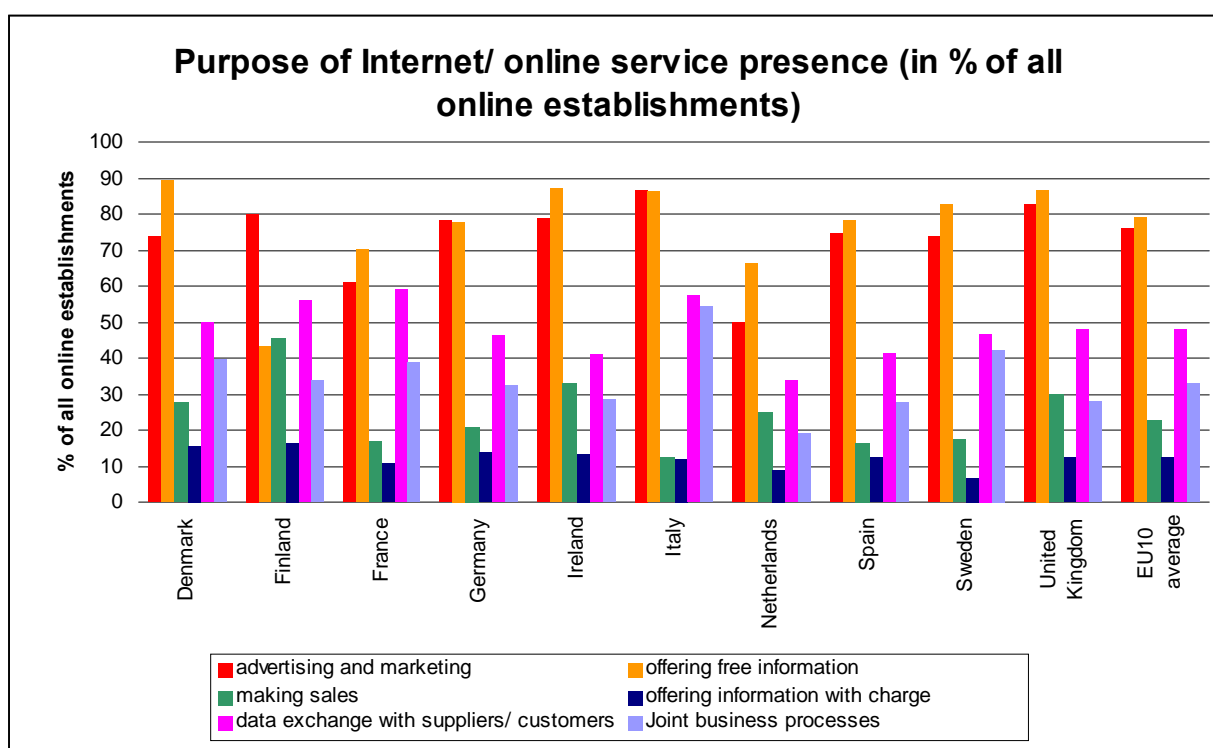
The following table and figure show the proportion of individual users in relation to only those establishments which are already present online. Accordingly, almost 21% of German establishments which are represented online also already make online sales. In particular in Finland, where selling of goods and services seem almost a commonplace constituent of online presence, this proportion is much higher: 46% of all establishments which are active online sell in this way. This is an indication that Finland is at an already advanced developmental stage of Electronic Commerce, characterised by the fact that sales and larger turnovers are actually and increasingly carried out via the Internet. Taking into consideration the plans up to 2001, along with Finland countries such as the United Kingdom, Denmark and the Netherlands will belong to the group which will use the Internet as an additional means of distribution much more actively than before or than other European countries.

The Swedes however are different: Only 18% of Swedish online establishments sell via the net, and only 7% - far below the EU average - offer chargeable information for downloads. The results of our General Population Survey (GPS) show that the differences between the neighbouring countries Finland and Sweden are due to differences in attitudes in the population: The Swedes show a much stronger aversion to disclosing personal data for payment transactions online.

TABLE 37: PURPOSE OF PRESENCE ON THE INTERNET OR OTHER ONLINE SERVICES (IN % OF ALL ESTABLISHMENTS ONLINE)

	advertising and market- ing	free informa- tion	making sales online	offering infor- mation with charge	data exchange with suppliers / customers	joint business processes
Denmark	73.9	89.4	27.3	15.5	49.6	39.7
Finland	80.0	43.1	45.5	16.3	55.8	33.7
France	61.1	70.0	16.8	10.7	59.3	38.6
Germany	78.2	78.0	20.9	13.7	46.2	32.5
Ireland	78.7	87.2	33.0	13.2	41.0	28.4
Italy	86.7	86.3	12.4	12.0	57.5	54.1
Netherlands	49.6	66.4	24.7	8.9	33.6	19.2
Spain	74.7	78.1	16.4	12.3	41.2	27.7
Sweden	73.6	82.8	17.5	6.5	46.9	42.3
U.K.	82.8	86.7	29.6	12.5	47.9	28.1
EUR10	76.1	79.0	22.5	12.3	48.1	33.1

Base: All establishments with online presence (n = 1,835), weighted

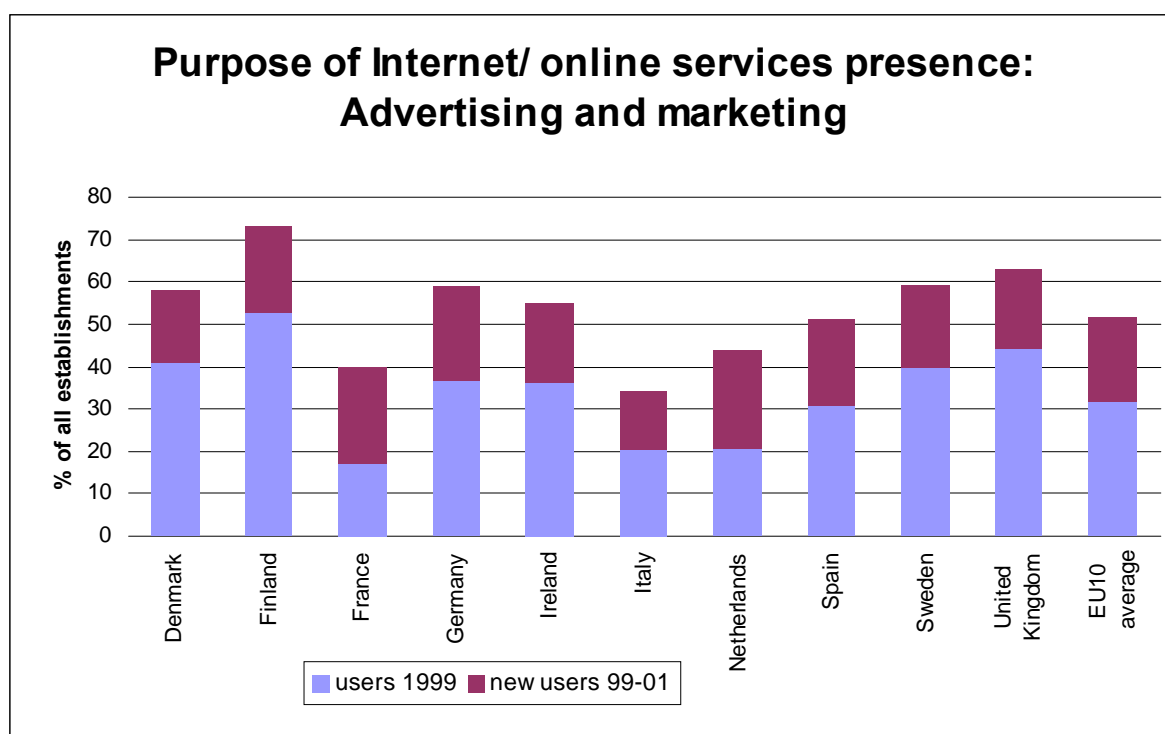


## 2.2.1 Advertising and Marketing

TABLE 38: USE OF ONLINE PRESENCE FOR ADVERTISING AND MARKETING (IN %)

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
Denmark	41.1	17.0	58.1	3	5
Finland	52.9	20.1	73.0	1	1
France	17.1	22.6	39.7	10	9
Germany	36.6	22.1	58.7	5	4
Ireland	36.3	18.7	55.0	6	6
Italy	20.2	13.9	34.1	9	10
Netherlands	20.7	23.3	44.0	8	8
Spain	31.0	20.1	51.1	7	7
Sweden	39.9	19.2	59.1	4	3
U.K.	44.2	18.9	63.1	2	2
EUR10	31.5	19.9	51.4		

Base: All establishments (n = 4.158)



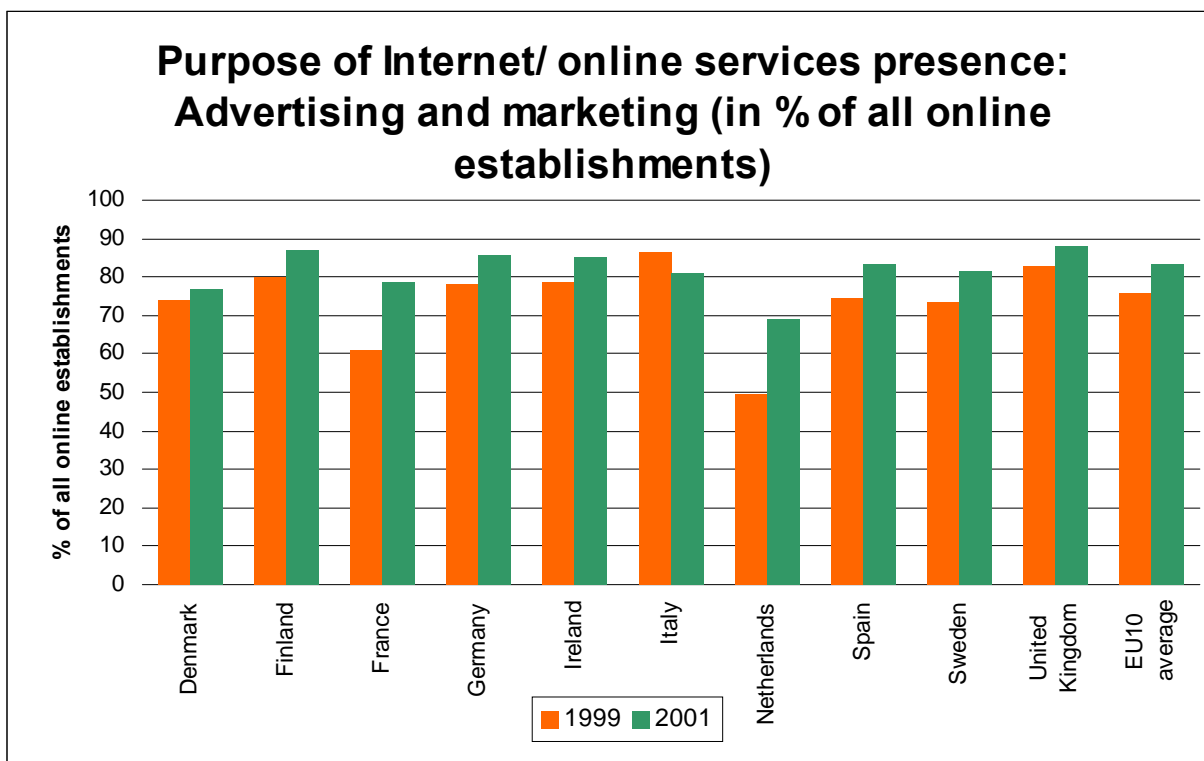
While the previous table/graphic illustrated the proportion of establishments which carry out advertising and marketing online in relation to all establishments, the following table/figure

shows those percentages in relation to only those establishments which are represented online or will be so by 2001.

**TABLE 39: USE OF ONLINE PRESENCE FOR ADVERTISING AND MARKETING (IN % OF ALL ONLINE ESTABLISHMENTS)**

	1999	2001
Denmark	73.9	77.1
Finland	80.0	87.2
France	61.1	78.6
Germany	78.2	85.4
Ireland	78.7	85.4
Italy	86.7	80.8
Netherlands	49.6	69.1
Spain	74.7	83.2
Sweden	73.6	81.4
U.K.	82.8	87.8
EUR10	76.1	83.2

Base: All establishments with online presence (n = 1,835), weighted

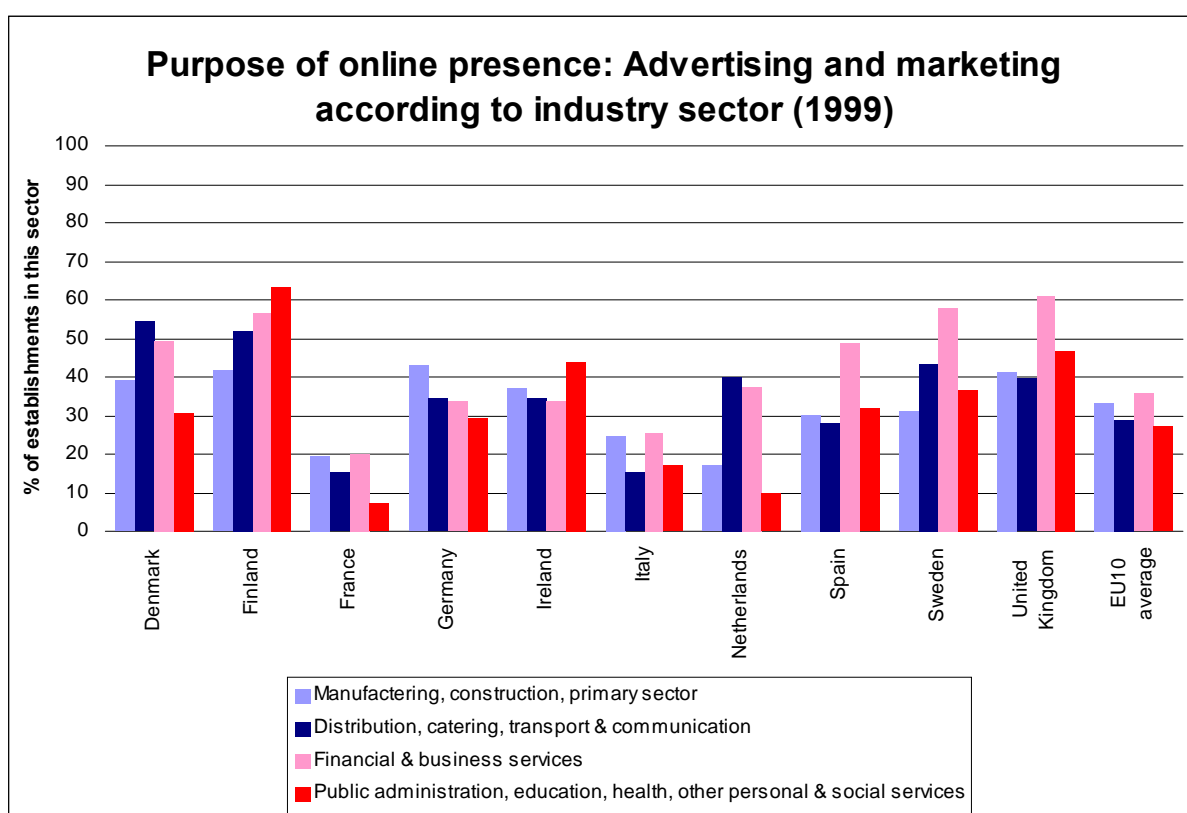


a) *Differentiation by sector*

TABLE 40: USE OF ONLINE PRESENCE FOR ADVERTISING AND MARKETING BY SECTOR (IN %)

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
<b>Denmark</b>	39.2	64.6	54.5	74.5	49.5	68.0	30.6	38.9
<b>Finland</b>	41.7	72.8	51.9	71.2	56.6	65.6	63.6	77.2
<b>France</b>	19.6	40.3	15.2	35.8	20.0	49.4	7.3	22.9
<b>Germany</b>	42.9	62.3	34.5	59.5	33.5	52.0	29.5	57.4
<b>Ireland</b>	36.9	53.6	34.6	53.9	33.8	61.6	43.7	60.2
<b>Italy</b>	24.5	43.1	15.2	29.6	25.7	38.8	16.9	23.6
<b>Netherlands</b>	16.9	47.2	40.0	54.3	37.5	62.5	10.0	30.0
<b>Spain</b>	30.4	52.5	28.1	48.9	49.0	66.3	31.9	47.5
<b>Sweden</b>	31.1	60.7	43.3	61.9	57.9	71.8	36.6	50.6
<b>U.K.</b>	41.4	63.7	39.7	59.9	61.0	71.9	46.7	61.5
<b>EUR10</b>	33.3	54.6	29.1	49.4	35.7	55.4	27.4	44.3

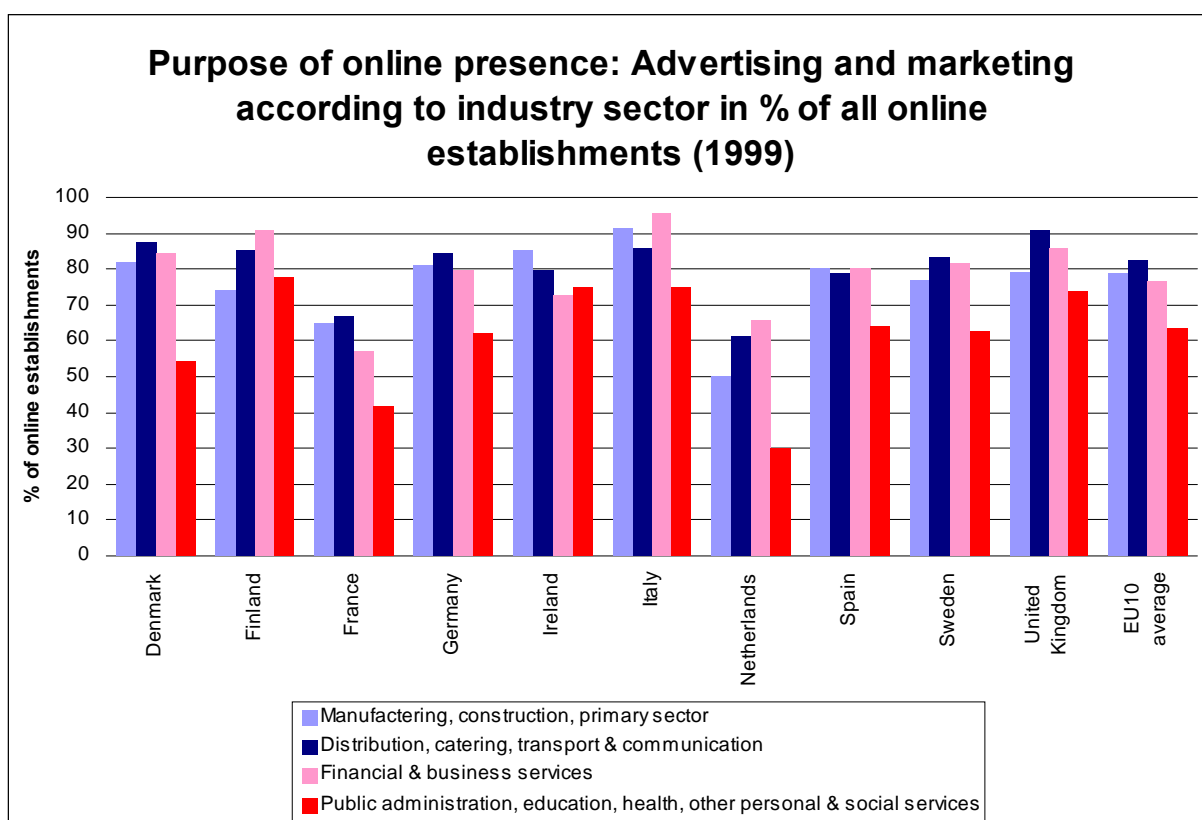
Base: All establishments (n = 4.158)



**TABLE 41: USE OF ONLINE PRESENCE FOR ADVERTISING AND MARKETING BY SECTOR (IN % OF ALL ONLINE ESTABLISHMENTS)**

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
<b>Denmark</b>	82.0	89.7	87.5	94.8	84.5	89.8	54.4	51.0
<b>Finland</b>	74.1	88.2	85.4	93.1	90.9	92.0	77.6	80.9
<b>France</b>	64.9	77.5	66.7	86.3	56.8	79.3	41.5	55.6
<b>Germany</b>	81.1	88.7	84.4	88.7	79.8	89.7	62.2	71.5
<b>Ireland</b>	85.0	86.0	79.7	98.2	72.5	87.3	75.2	79.9
<b>Italy</b>	91.4	87.1	85.9	91.9	95.5	90.4	74.8	55.8
<b>Netherlands</b>	50.1	79.3	60.9	70.4	65.7	79.6	30.0	53.8
<b>Spain</b>	80.2	88.8	78.7	85.0	79.9	87.6	64.1	71.3
<b>Sweden</b>	77.0	87.7	83.3	90.8	81.7	89.6	62.5	68.3
<b>U.K.</b>	79.3	89.5	90.8	92.0	85.7	86.8	73.4	78.4
<b>EUR10</b>	78.5	86.8	82.4	88.8	76.6	85.5	63.3	67.7

Base: All establishments with online presence (n = 1,835), weighted

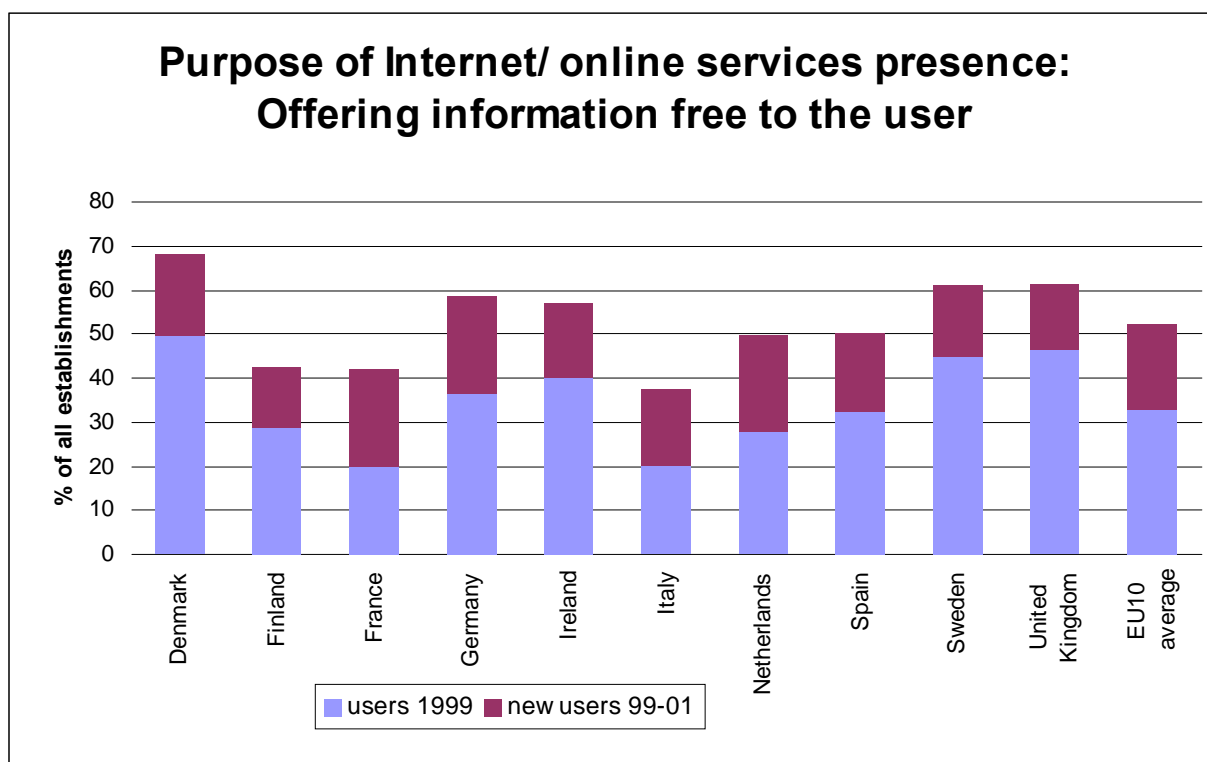


### 2.2.2 Information supply free of charge

TABLE 42: USE OF ONLINE PRESENCE FOR THE SUPPLY OF INFORMATION (IN %)

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
Denmark	49.7	18.7	68.4	1	1
Finland	28.5	13.9	42.4	7	8
France	19.6	22.5	42.1	10	9
Germany	36.5	22.0	58.5	5	4
Ireland	40.2	16.6	56.8	4	5
Italy	20.1	17.6	37.7	9	10
Netherlands	27.7	22.0	49.7	8	7
Spain	32.4	17.5	49.9	6	6
Sweden	44.9	16.3	61.2	3	3
U.K.	46.3	15.3	61.6	2	2
EUR10	32.7	19.3	52.0		

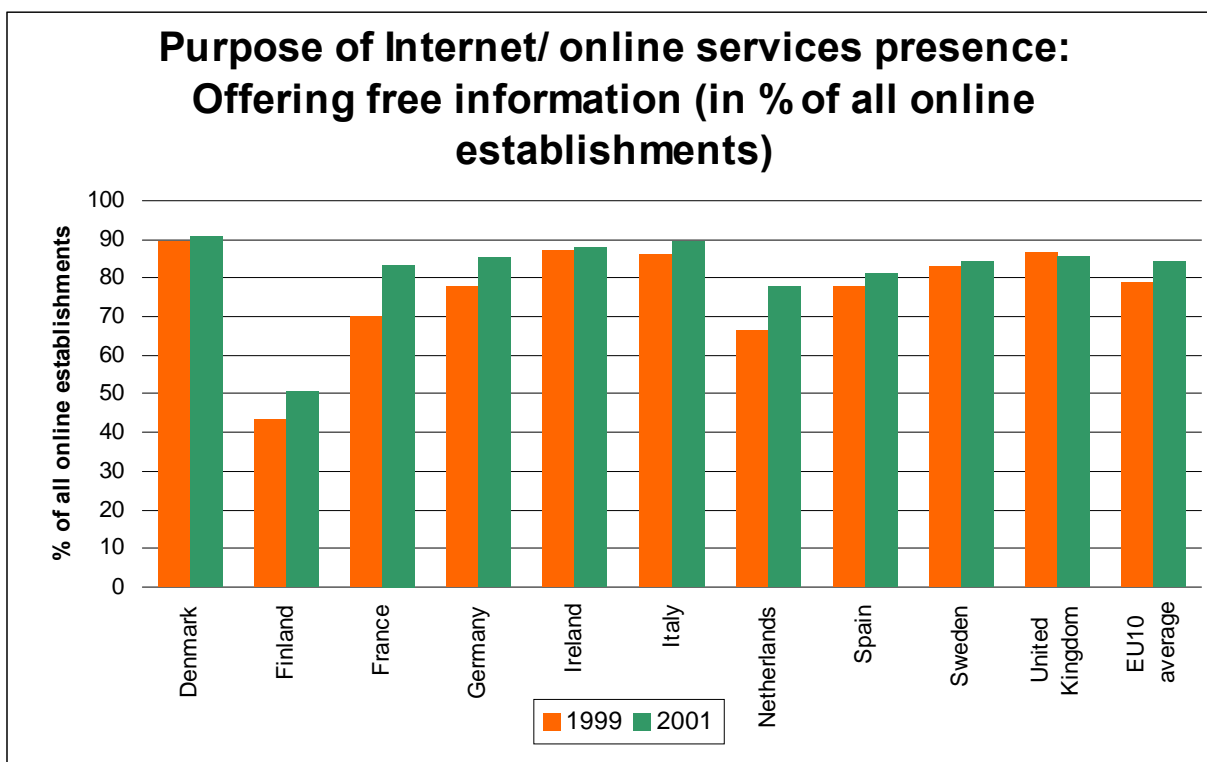
Base: All establishments (n = 4,158)



**TABLE 43: USE OF ONLINE PRESENCE FOR THE SUPPLY OF INFORMATION (IN % OF ALL ONLINE ESTABLISHMENTS)**

	1999	2001
Denmark	89.4	90.7
Finland	43.1	50.7
France	70.0	83.4
Germany	78.0	85.2
Ireland	87.2	88.2
Italy	86.3	89.3
Netherlands	66.4	78.0
Spain	78.1	81.3
Sweden	82.8	84.3
U.K.	86.7	85.7
EUR10	79.0	84.1

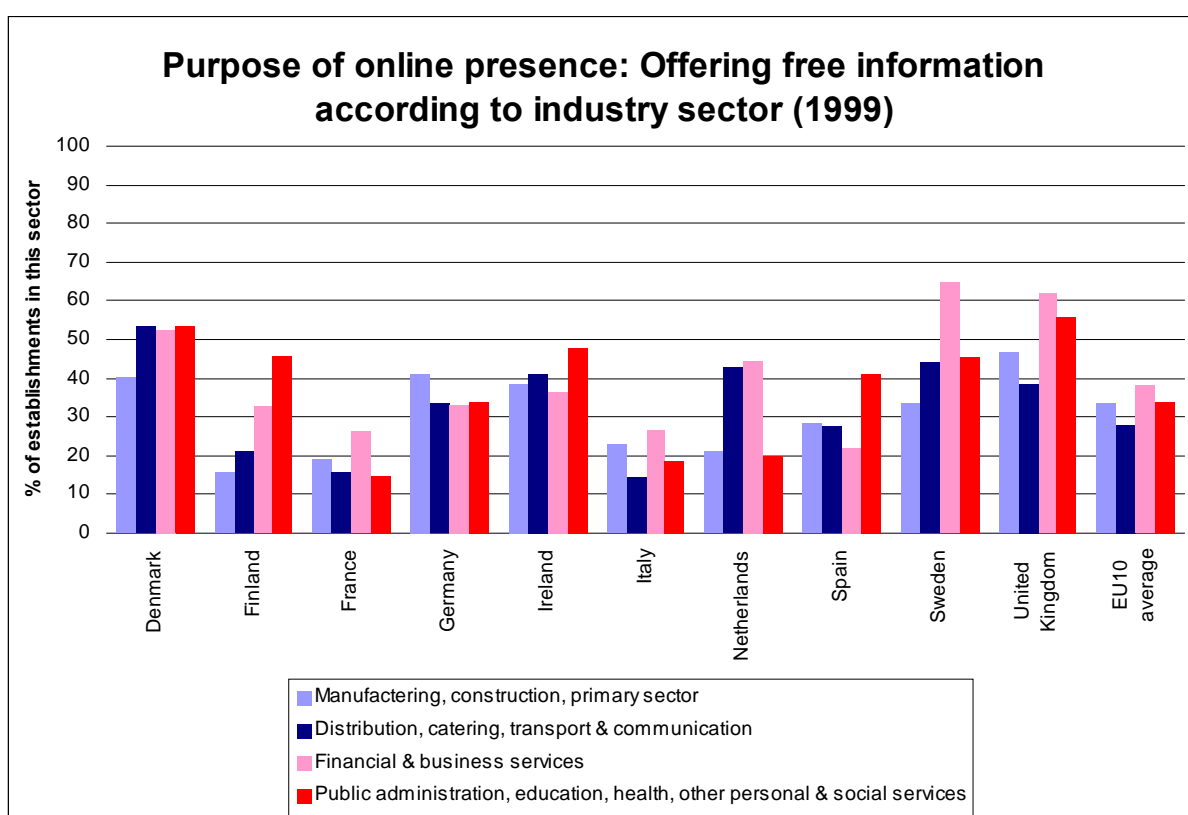
Base: All establishments with online presence (n = 1,835), weighted



a) *Differentiation by sector***TABLE 44: USE OF ONLINE PRESENCE FOR THE SUPPLY OF INFORMATION BY SECTOR (IN %)**

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
<b>Denmark</b>	40.2	61.8	53.6	67.7	52.7	68.1	53.4	74.5
<b>Finland</b>	15.5	31.5	21.2	38.7	32.8	36.2	45.6	58.0
<b>France</b>	19.0	39.3	15.6	36.0	26.3	53.4	14.8	37.9
<b>Germany</b>	41.1	60.1	33.4	58.4	33.2	46.8	34.1	69.0
<b>Ireland</b>	38.6	53.8	40.9	49.9	36.6	64.4	47.7	66.3
<b>Italy</b>	22.9	43.9	14.6	28.7	26.9	40.9	18.5	36.9
<b>Netherlands</b>	21.3	43.8	42.9	51.5	44.6	66.0	20.0	45.8
<b>Spain</b>	28.4	45.3	27.7	47.2	22.1	33.4	41.0	56.4
<b>Sweden</b>	33.6	54.3	43.9	57.7	64.9	77.7	45.4	62.0
<b>U.K.</b>	46.6	59.7	38.4	59.5	61.8	71.6	55.9	66.1
<b>EUR10</b>	33.3	51.6	28.1	47.9	38.1	55.1	33.8	55.7

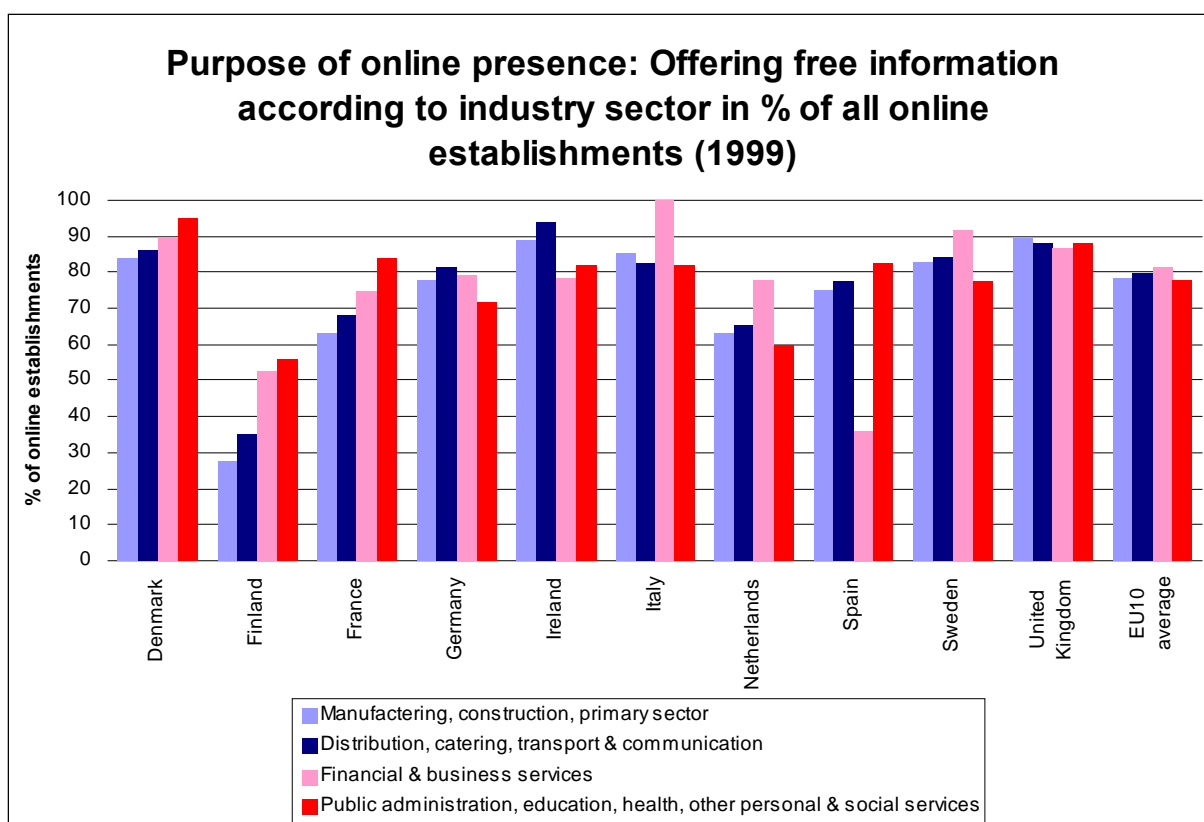
Base: All establishments (n = 4.158)



**TABLE 45: USE OF ONLINE PRESENCE FOR THE SUPPLY OF INFORMATION BY SECTOR (IN % OF ALL ONLINE ESTABLISHMENTS)**

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
<b>Denmark</b>	84.1	85.8	86.0	86.1	89.9	90.0	94.8	97.6
<b>Finland</b>	27.5	38.2	34.9	50.6	52.6	50.8	55.6	60.8
<b>France</b>	62.9	75.6	68.4	86.7	74.7	85.7	84.1	92.0
<b>Germany</b>	77.7	85.6	81.7	87.0	79.0	80.7	71.9	85.9
<b>Ireland</b>	88.9	86.4	94.2	90.9	78.5	91.2	82.1	88.0
<b>Italy</b>	85.4	88.7	82.5	89.1	100.0	95.3	81.9	87.2
<b>Netherlands</b>	63.2	73.6	65.3	66.8	78.1	84.1	60.1	82.1
<b>Spain</b>	74.9	76.6	77.6	82.1	36.1	44.1	82.3	84.7
<b>Sweden</b>	83.2	78.5	84.4	84.6	91.5	97.0	77.5	83.7
<b>U.K.</b>	89.3	83.8	87.9	91.4	86.8	86.5	87.9	84.3
<b>EUR10</b>	78.5	82.0	79.6	86.2	81.8	85.0	78.1	85.2

Base: All establishments with online presence (n = 1,835), weighted

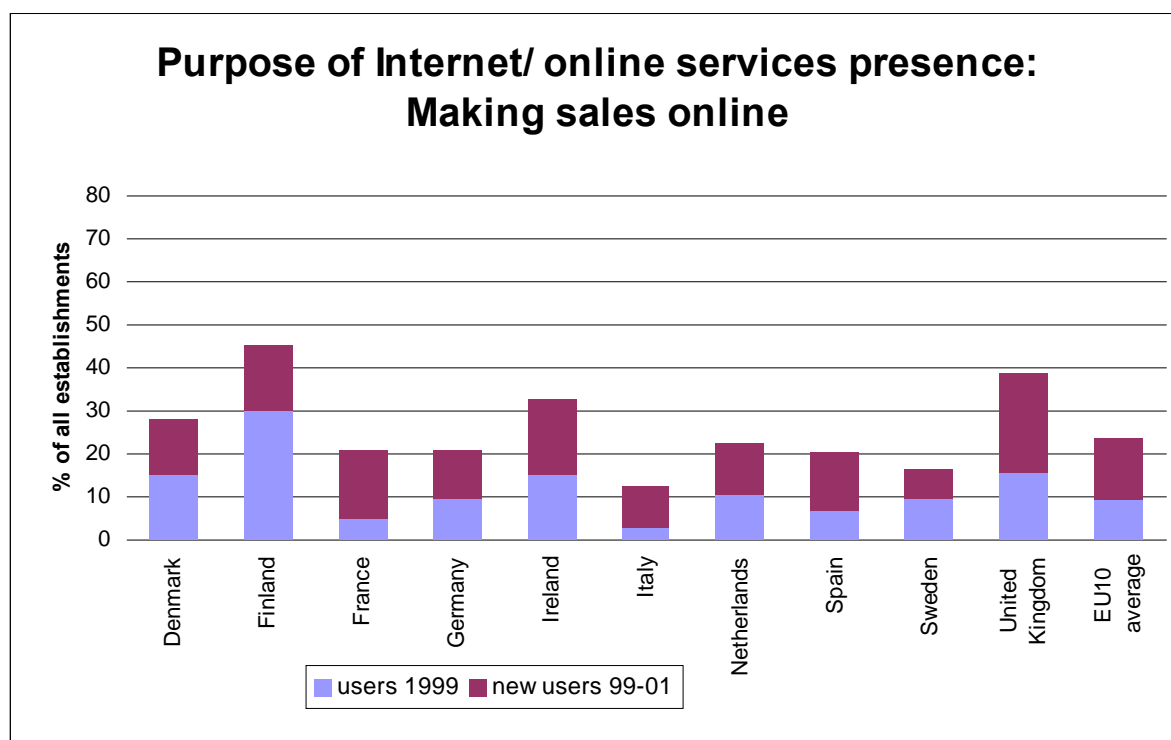


## 2.2.3 Online Sales

TABLE 46: USE OF ONLINE PRESENCE FOR ONLINE SALES (IN %)

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
Denmark	15.2	12.8	28.0	3	4
Finland	30.1	15.2	45.3	1	1
France	4.7	16.3	21.0	9	6
Germany	9.8	11.2	21.0	6	6
Ireland	15.2	17.5	32.7	3	3
Italy	2.9	9.5	12.4	10	10
Netherlands	10.3	12.3	22.6	5	5
Spain	6.8	13.7	20.5	8	8
Sweden	9.5	7.1	16.6	7	9
U.K.	15.8	22.9	38.7	2	2
EUR10	9.3	14.4	23.7		

Base: All establishments (n = 4.158)



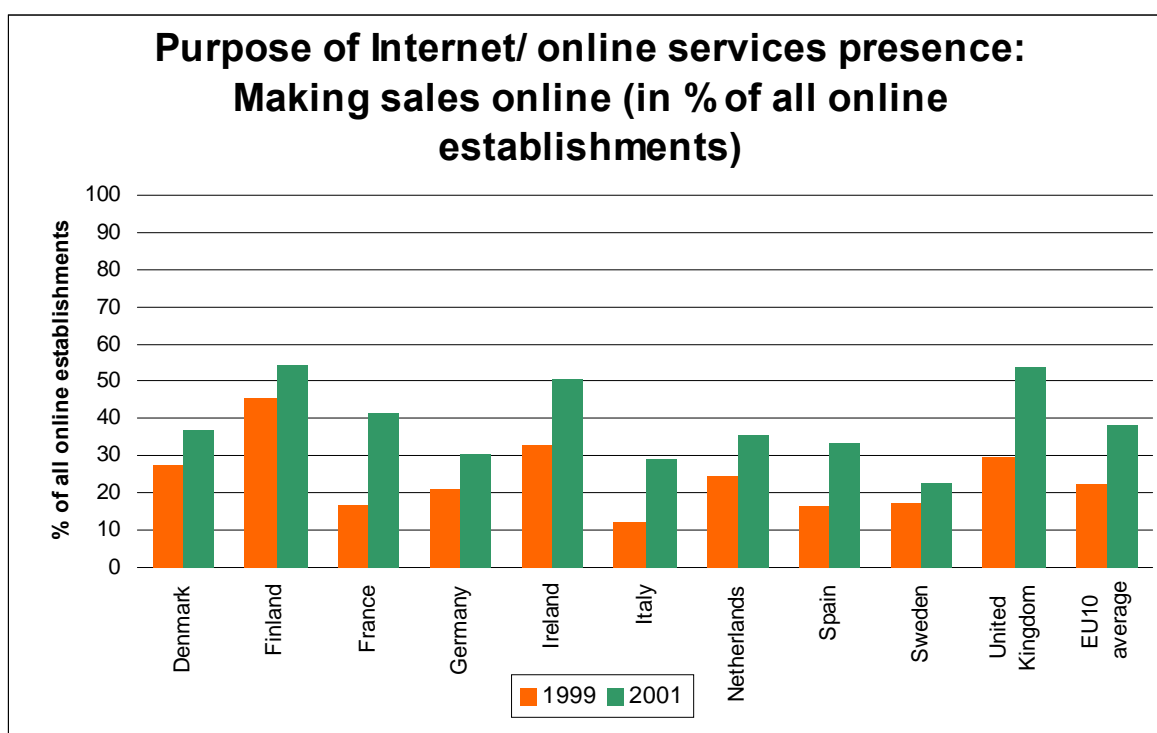
At present only 10% of all German establishments (see above) and 21% of all German establishments with an online presence carry out online sales but over the next 2 years their proportion will increase dramatically to 21% and 31% respectively. Germany will remain below average for all establishments, which by 2001 will be 25% and 40% respectively. At the same time there is however an indication that the Internet together with other online services

will grow at very high speed from a peripheral phenomenon to a significant means of distribution for a steadily increasing number of establishments.

TABLE 47: USE OF ONLINE PRESENCE FOR ONLINE SALES (IN % OF ALL ONLINE ESTABLISHMENTS)

	1999	2001
Denmark	27.3	37.1
Finland	45.5	54.1
France	16.8	41.6
Germany	20.9	30.6
Ireland	33.0	50.8
Italy	12.4	29.4
Netherlands	24.7	35.5
Spain	16.4	33.4
Sweden	17.5	22.9
U.K.	29.6	53.8
EUR10	22.5	38.3

Base: All establishments with online presence (n = 1,835), weighted



#### a) Differentiation by establishment size

In E-Commerce research a distinction is made between the so-called New Internet Start-ups, which orientate their business ideas towards the Internet potential and often would not be able to exist without the web, and the New Channel Experiments, established organisations

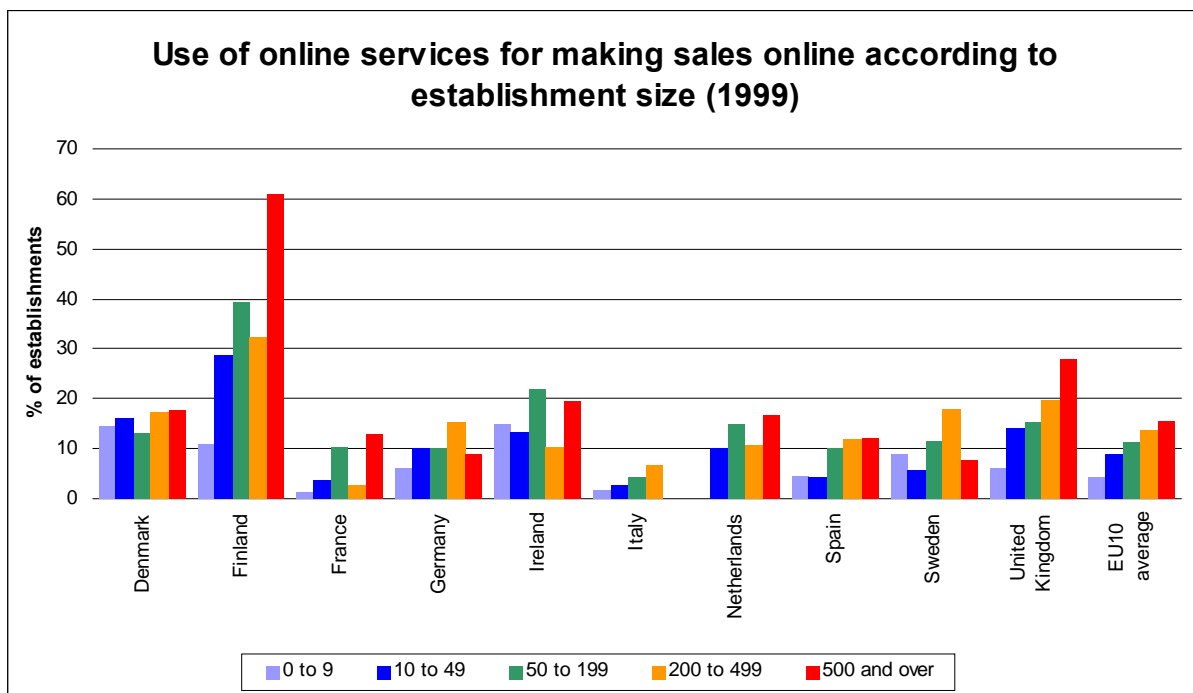
which have begun to use the Internet as an additional means of marketing and supply, in most cases to gain experience or within the framework of a defence strategy to defend their marketshare against competitors from the New Internet Start-ups circle. New Internet Start-ups are generally still small organisations with few employees, New Channel Experimenters are mainly medium and large organisations.

These types of Internet activities cannot be clearly differentiated by the observation of establishments selling online. In Finland, the leading country, there is a clear cut positive relationship between establishment size and online selling activities while this correlation is less marked or not present at all in the other countries. This finding indicates that with an increasing E-Commerce development, online selling is becoming a common sales means where, accordingly, larger establishments are active at above average levels.

**TABLE 48: USE OF ONLINE PRESENCE FOR ONLINE SALES BY ESTABLISHMENT SIZE (IN %)**

	0 to 9		10 to 49		50 to 199		200 to 499		500 and more	
	<i>users 1999</i>	<i>new users 1999- 2001</i>	<i>users 1999</i>	<i>new users 1999- 2001</i>	<i>users 1999</i>	<i>new users 1999- 2001</i>	<i>users 1999</i>	<i>new users 1999- 2001</i>	<i>users 1999</i>	<i>new users 1999- 2001</i>
<b>Denmark</b>	14.5	20.5	16.2	9.9	13.0	12.8	17.4	5.2	17.6	20.2
<b>Finland</b>	11.0	16.8	28.7	13.5	39.2	18.9	32.2	15.3	61.0	9.6
<b>France</b>	1.2	12.4	3.8	17.6	10.2	16.4	2.8	18.4	12.7	24.0
<b>Germany</b>	6.0	12.2	10.1	5.8	10.0	16.4	15.3	15.6	8.9	6.2
<b>Ireland</b>	14.9	12.2	13.5	10.2	21.9	24.8	10.4	31.1	19.6	6.8
<b>Italy</b>	1.9	6.1	2.8	12.4	4.4	8.4	6.7	14.8	-	-
<b>Netherlands</b>	0.0	12.8	9.9	12.3	15.0	12.5	10.8	12.2	16.7	11.1
<b>Spain</b>	4.7	11.1	4.2	12.4	9.9	17.0	11.9	17.7	12.1	9.2
<b>Sweden</b>	8.9	7.5	5.9	7.0	11.6	3.8	18.1	21.5	7.7	1.8
<b>U.K.</b>	6.0	18.1	14.1	25.2	15.3	22.1	19.8	25.7	28.1	21.2
<b>EUR10</b>	4.2	11.5	8.7	14.5	11.4	15.6	13.6	18.5	15.4	14.3

**Base: All establishments (n = 4,158), weighted**



*b) Differentiation by sector*

In Germany as in the majority of the other countries, commercial establishments clearly distinguish themselves from the other economic sectors: 38% already sell online while only 13% do so in manufacturing industry. This result indicates that dis-intermediation, ie the elimination of traditional commerce through direct marketing from producers to consumers has not yet started to a large extent. Furthermore, the proportion of commercial establishments selling online is above average. However, this result does not exclude the possibility that behind all this activity in the commercial sector there might be a defensive strategy which aims at averting the danger of dis-intermediation.

TABLE 49: USE OF ONLINE PRESENCE FOR ONLINE SALES BY SECTOR (IN %)

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
<b>Denmark</b>	14.7	32.8	22.0	44.0	20.3	34.8	9.1	11.5
<b>Finland</b>	23.5	46.8	37.3	51.9	21.5	32.9	32.4	42.2
<b>France</b>	6.2	16.6	3.7	23.9	5.9	27.5	0.0	6.7
<b>Germany</b>	6.7	18.3	15.7	32.9	5.3	13.5	13.1	19.3
<b>Ireland</b>	13.3	34.0	22.2	30.1	10.8	38.8	15.3	22.0
<b>Italy</b>	3.9	15.9	2.1	12.2	3.6	14.1	2.1	6.7
<b>Netherlands</b>	4.5	20.2	28.6	37.2	16.1	26.8	6.7	18.4
<b>Spain</b>	3.9	18.3	10.7	25.2	17.8	36.6	1.1	10.2
<b>Sweden</b>	4.0	14.9	12.6	24.8	20.2	27.2	6.8	8.5
<b>U.K.</b>	10.3	32.0	19.4	45.1	23.3	45.7	13.5	28.5
<b>EUR10</b>	6.9	21.2	12.2	30.1	10.3	25.5	8.1	16.0

Base: All establishments (n = 4.158)

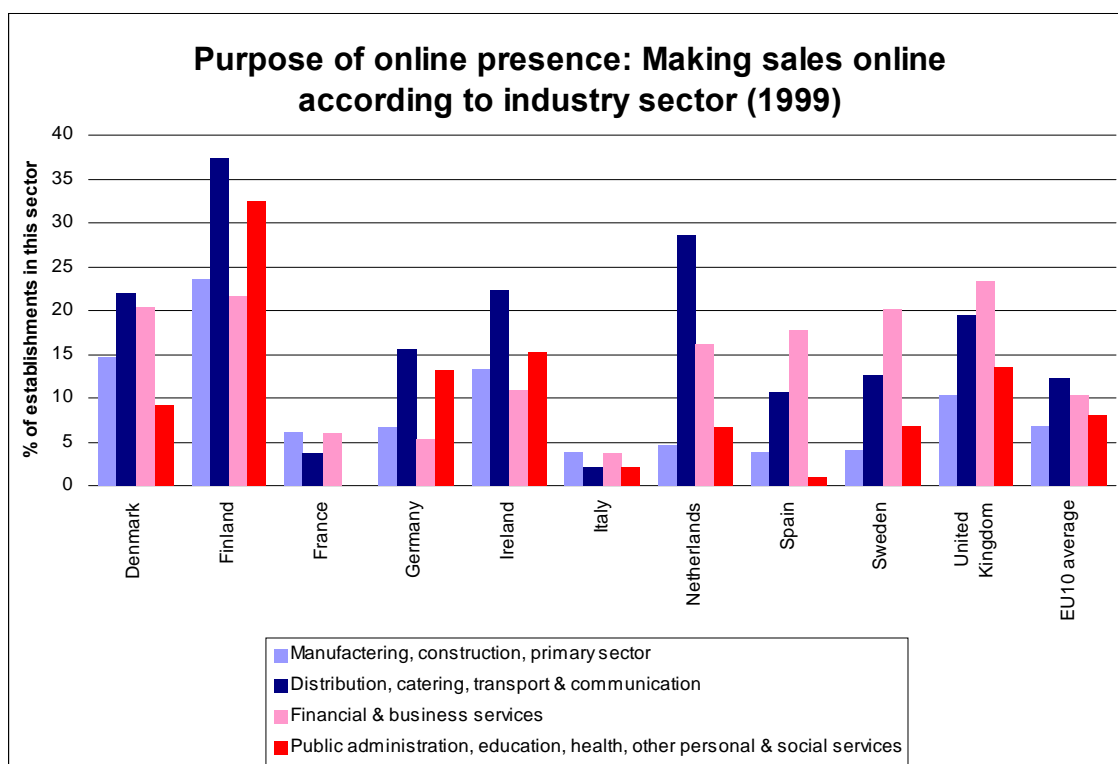
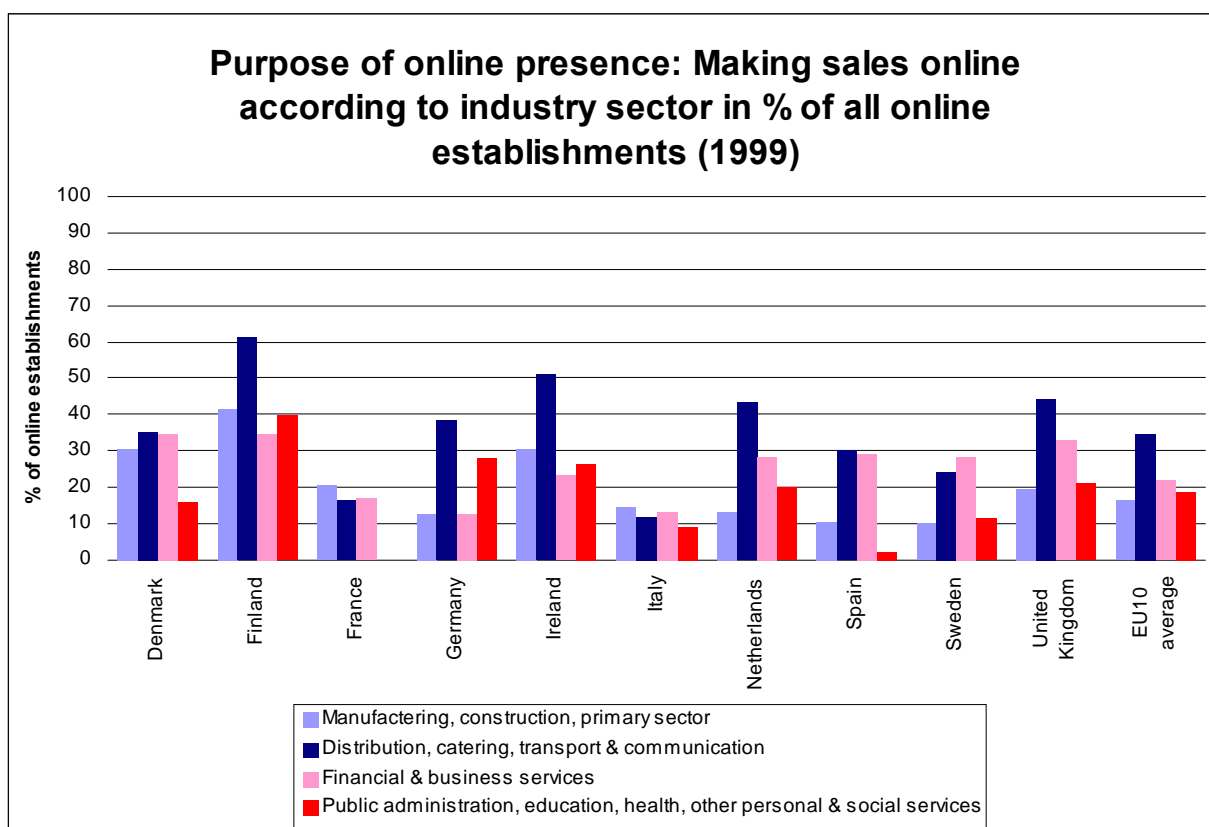


TABLE 50: USE OF ONLINE PRESENCE FOR ONLINE SALES BY SECTOR (IN % OF ALL ONLINE ESTABLISHMENTS)

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
Denmark	30.8	45.6	35.3	56.0	34.6	46.0	16.2	15.1
Finland	41.7	56.7	61.3	67.8	34.5	46.1	39.5	44.2
France	20.5	31.9	16.2	57.6	16.8	44.1	0.0	16.3
Germany	12.7	26.1	38.4	49.0	12.6	23.3	27.6	24.0
Ireland	30.6	54.6	51.2	54.8	23.2	55.0	26.3	29.2
Italy	14.6	32.1	11.9	37.9	13.4	32.9	9.3	15.8
Netherlands	13.4	33.9	43.5	48.2	28.2	34.1	20.1	33.0
Spain	10.3	31.0	30.0	43.8	29.0	48.3	2.2	15.3
Sweden	9.9	21.5	24.2	36.4	28.5	34.0	11.6	11.5
U.K.	19.7	44.9	44.4	69.3	32.7	55.2	21.2	36.4
EUR10	16.3	33.7	34.6	54.1	22.1	39.4	18.7	24.5

Base: All establishments with online presence (n = 1,835), weighted

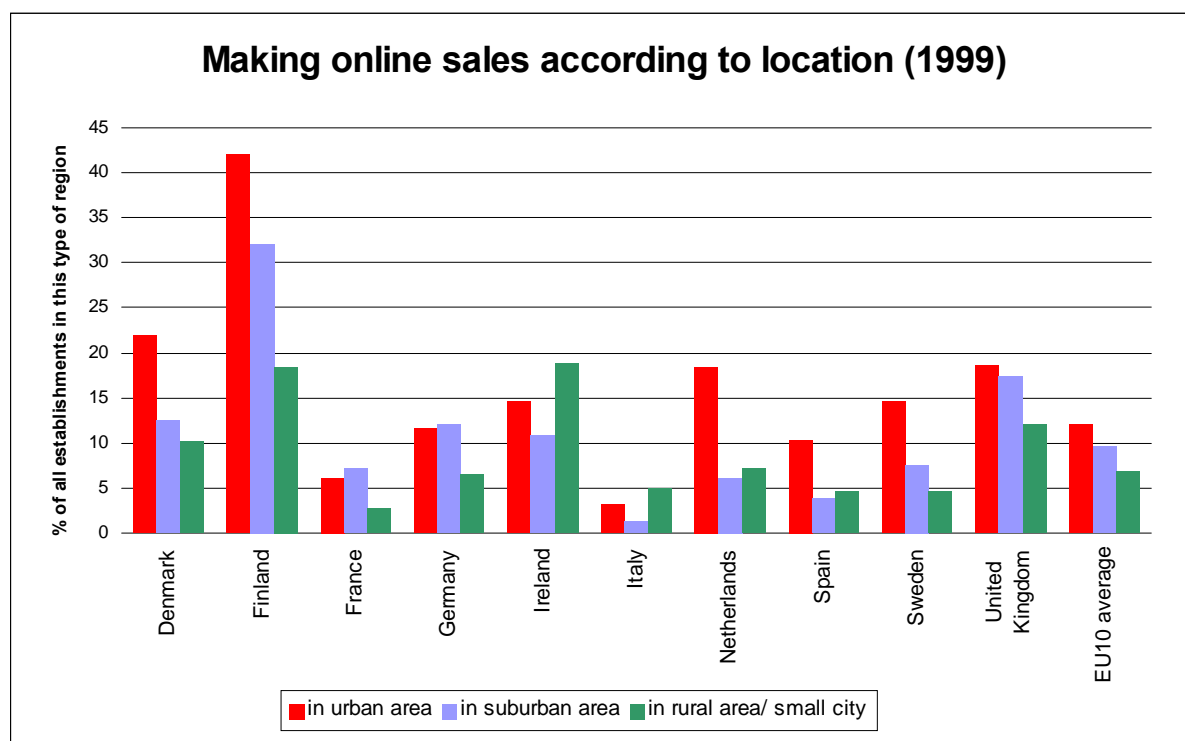


c) *Differentiation by establishment location*

TABLE 51: ONLINE SALES BY ESTABLISHMENT LOCATION (IN %)

	in large cities		in suburban area		in rural area or small city	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
Denmark	22.0	9.3	12.5	14.2	10.1	15.3
Finland	42.1	9.3	32.1	20.2	18.4	19.6
France	6.1	21.5	7.2	17.5	2.8	12.9
Germany	11.6	9.2	11.9	18.4	6.4	8.3
Ireland	14.5	27.0	10.8	19.3	18.9	7.3
Italy	3.1	10.5	1.3	7.7	5.0	10.8
Netherlands	18.5	12.0	6.1	20.7	7.2	7.2
Spain	10.4	14.8	3.9	9.6	4.7	15.8
Sweden	14.6	7.2	7.5	7.3	4.6	6.8
U.K.	18.7	22.4	17.4	20.9	12.0	25.3
EUR10	12.0	14.1	9.6	15.7	6.8	13.7

Base: All establishments (n = 4,158), weighted



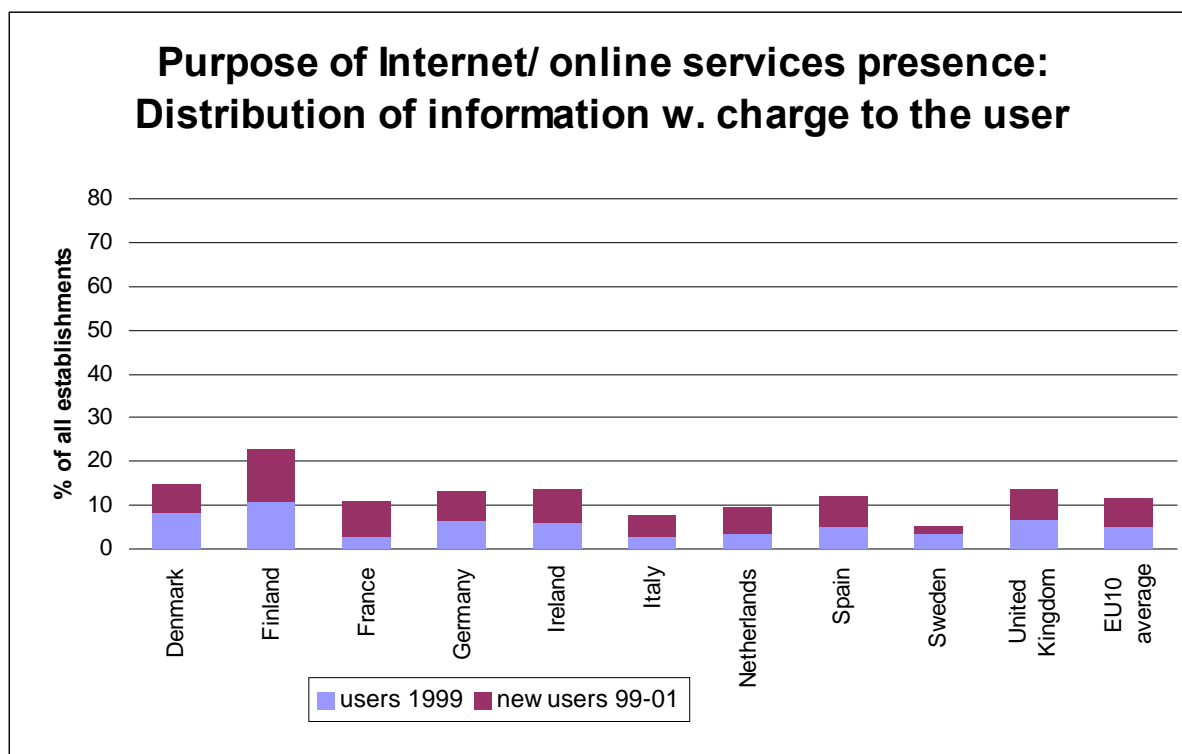
## 2.2.4 Supply of information with charge

The possibility of selling services in the form of information via the Internet and performing all transaction steps including data delivery itself via the same medium has a particular fascination for the economic world. However, so far many potential suppliers have had to find out that only highly specialised information (and pornography) can actually be sold in this way, while for example the demand for chargeable contents of newspapers and magazines was so low in many cases that such trials had to be discontinued. This might be caused not least by the still lacking possibility for micropayments (T-Online and Minitel have been offering this option for many years). However it can be expected that things will be put right in the medium term. As it is not yet known which payment systems will be successful in practice it is difficult to make prognoses for even the immediate future.

**TABLE 52: USE OF ONLINE PRESENCE FOR THE SUPPLY OF INFORMATION WITH CHARGE (IN %)**

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
<b>Denmark</b>	8.6	6.3	14.9	2	2
<b>Finland</b>	10.8	12.0	22.8	1	1
<b>France</b>	3.0	7.9	10.9	9	7
<b>Germany</b>	6.4	6.7	13.1	4	5
<b>Ireland</b>	6.1	7.4	13.5	5	4
<b>Italy</b>	2.8	4.8	7.6	10	9
<b>Netherlands</b>	3.7	6.0	9.7	7	8
<b>Spain</b>	5.1	7.0	12.1	6	6
<b>Sweden</b>	3.5	1.9	5.4	8	10
<b>U.K.</b>	6.7	7.0	13.7	3	3
<b>EUR10</b>	5.1	6.6	11.7		

**Base: All establishments (n = 4,158), weighted**



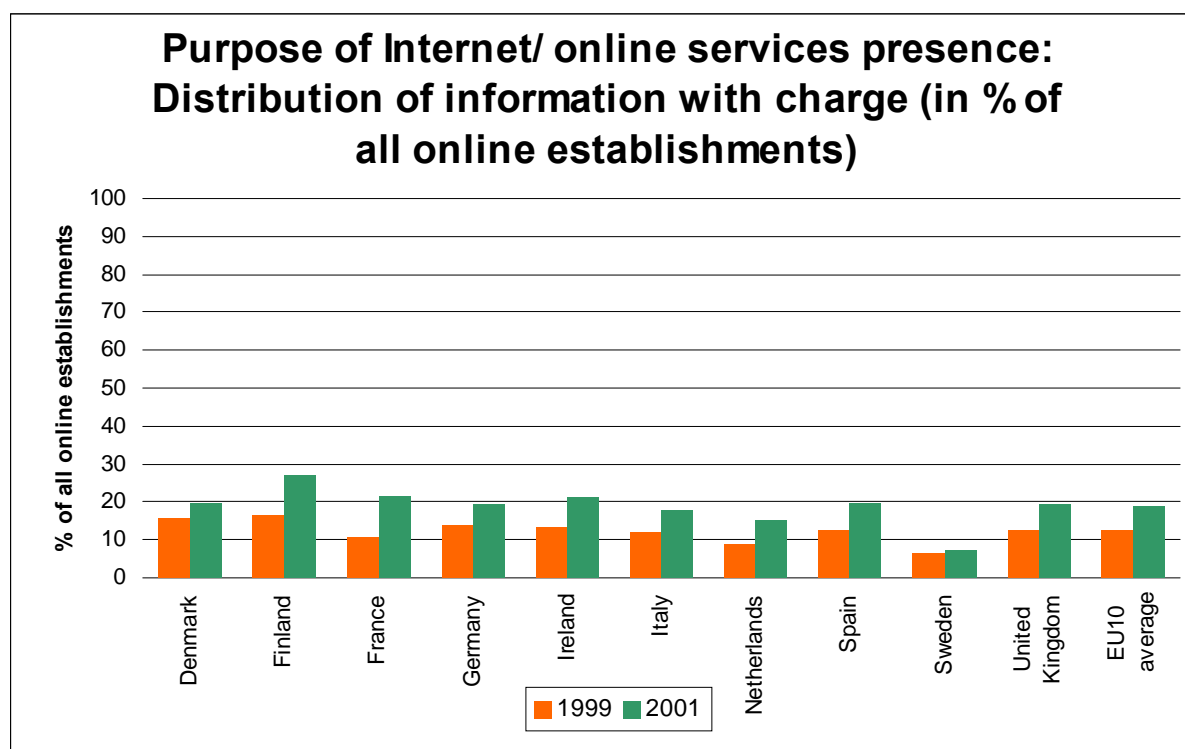
5% of all EUR10 establishments and 6% of German establishments currently use online services to offer and sell chargeable information. By 2001 expectation regarding growth are at an average 100% as with online sales as a whole.

By 2001, in Germany as well as in Europe on the whole, almost every fifth establishment of those already with an online presence will sell chargeable information via the Internet or other online service.

**TABLE 53: USE OF ONLINE PRESENCE FOR THE SUPPLY OF INFORMATION WITH CHARGE (IN % OF ALL ONLINE ESTABLISHMENTS)**

	1999	2001
<b>Denmark</b>	15.5	19.8
<b>Finland</b>	16.3	27.2
<b>France</b>	10.7	21.6
<b>Germany</b>	13.7	19.1
<b>Ireland</b>	13.2	21.0
<b>Italy</b>	12.0	18.0
<b>Netherlands</b>	8.9	15.2
<b>Spain</b>	12.3	19.7
<b>Sweden</b>	6.5	7.4
<b>U.K.</b>	12.5	19.1
<b>EUR10</b>	12.3	18.9

Base: All establishments with online presence (n = 1,835), weighted

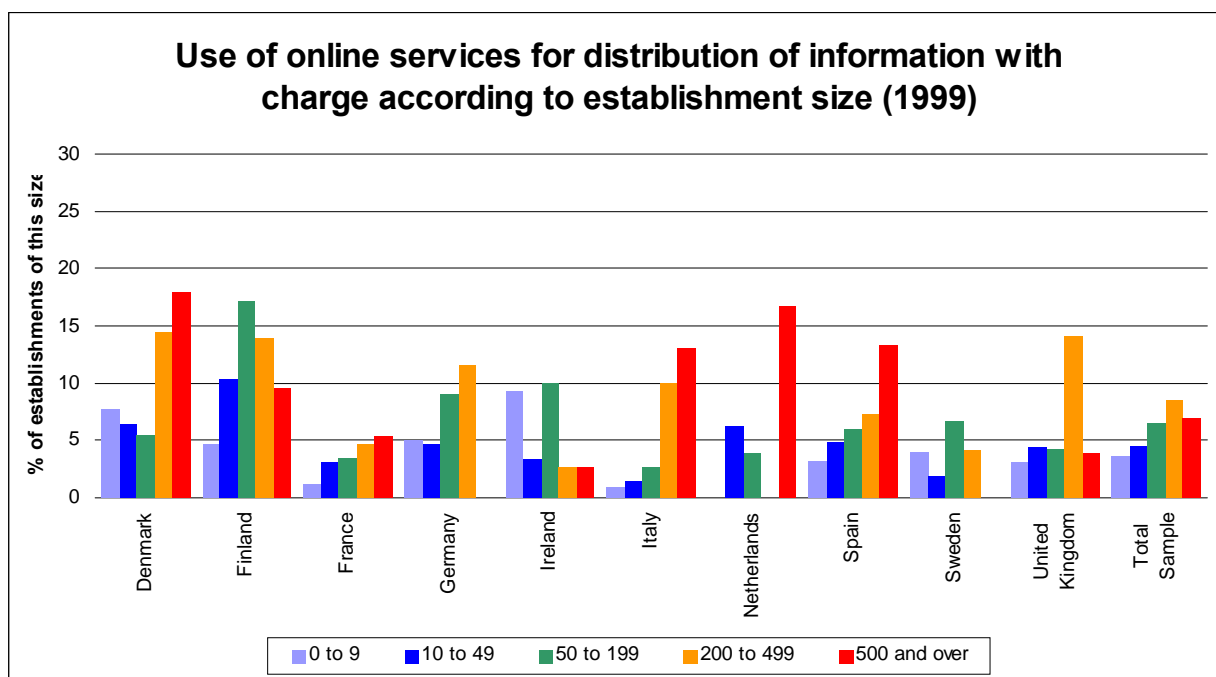


a) *Differentiation by establishment size*

**TABLE 54: USE OF ONLINE PRESENCE FOR THE SUPPLY OF INFORMATION WITH CHARGE BY ESTABLISHMENT SIZE (IN %)**

	0 to 9		10 to 49		50 to 199		200 to 499		500 and more	
	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001	users 1999	new users 1999- 2001
<b>Denmark</b>	7.7	5.2	6.4	6.3	5.5	3.4	14.5	17.4	17.9	0.0
<b>Finland</b>	4.6	7.9	10.3	4.2	17.1	20.7	13.9	14.2	9.6	19.8
<b>France</b>	1.2	7.2	3.1	9.4	3.5	6.1	4.7	8.9	5.3	7.4
<b>Germany</b>	5.0	2.7	4.6	7.5	9.0	12.2	11.5	7.3	0.0	7.0
<b>Ireland</b>	9.3	5.5	3.3	9.4	10.0	7.5	2.6	5.3	2.7	18.8
<b>Italy</b>	0.9	3.1	1.4	7.2	2.6	7.2	9.9	0.4	13.0	13.6
<b>Netherlands</b>	0.0	6.4	6.2	4.9	3.8	6.3	0.0	6.8	16.7	5.6
<b>Spain</b>	3.2	5.4	4.8	7.6	6.0	7.1	7.3	11.1	13.3	5.4
<b>Sweden</b>	4.0	2.8	1.9	0.8	6.7	0.0	4.1	5.9	0.0	3.2
<b>U.K.</b>	3.1	4.7	4.4	7.4	4.2	7.5	14.1	9.5	3.8	5.2
<b>EUR10</b>	2.8	4.4	4.0	7.4	5.6	8.0	9.8	7.9	4.8	6.9

Base: All establishments (n = 4,158), weighted



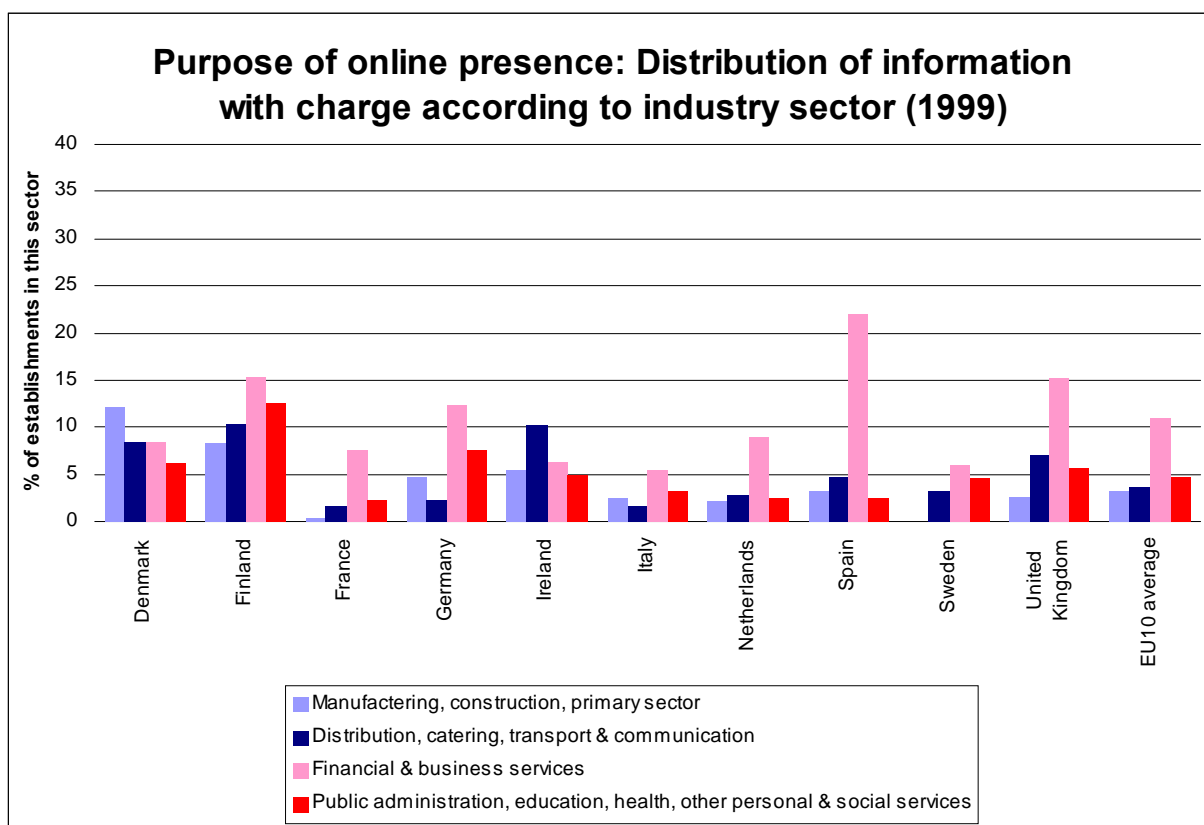
### b) Differentiation by sector

A comparison of industry sectors shows that those establishments in particular in business and financial services distribute chargeable information. As many products from this economic sector are very suitable for online selling, this finding corresponds with expectations. However a surprisingly high number of establishments from the public sector or social services are represented online in order to sell chargeable information.

**TABLE 55: USE OF ONLINE PRESENCE FOR THE SUPPLY OF INFORMATION WITH CHARGE BY SECTOR (IN %)**

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
<b>Denmark</b>	12.1	14.1	8.4	19.0	8.4	13.9	6.2	13.4
<b>Finland</b>	8.2	28.3	10.4	17.4	15.3	28.3	12.5	21.6
<b>France</b>	0.4	6.5	1.6	9.0	7.5	17.0	2.3	12.3
<b>Germany</b>	4.8	13.9	2.3	7.3	12.4	17.7	7.5	11.7
<b>Ireland</b>	5.5	11.5	10.2	17.6	6.3	18.5	4.9	12.9
<b>Italy</b>	2.5	7.5	1.6	5.5	5.4	15.5	3.1	6.1
<b>Netherlands</b>	2.2	10.1	2.9	5.8	8.9	12.5	2.5	9.2
<b>Spain</b>	3.2	8.7	4.8	10.8	22.1	33.4	2.4	12.0
<b>Sweden</b>	0.0	1.4	3.1	5.1	6.0	9.6	4.6	6.3
<b>U.K.</b>	2.6	9.4	7.1	14.8	15.2	20.7	5.6	13.5
<b>EUR10</b>	3.1	10.1	3.7	9.7	10.9	18.1	4.8	10.8

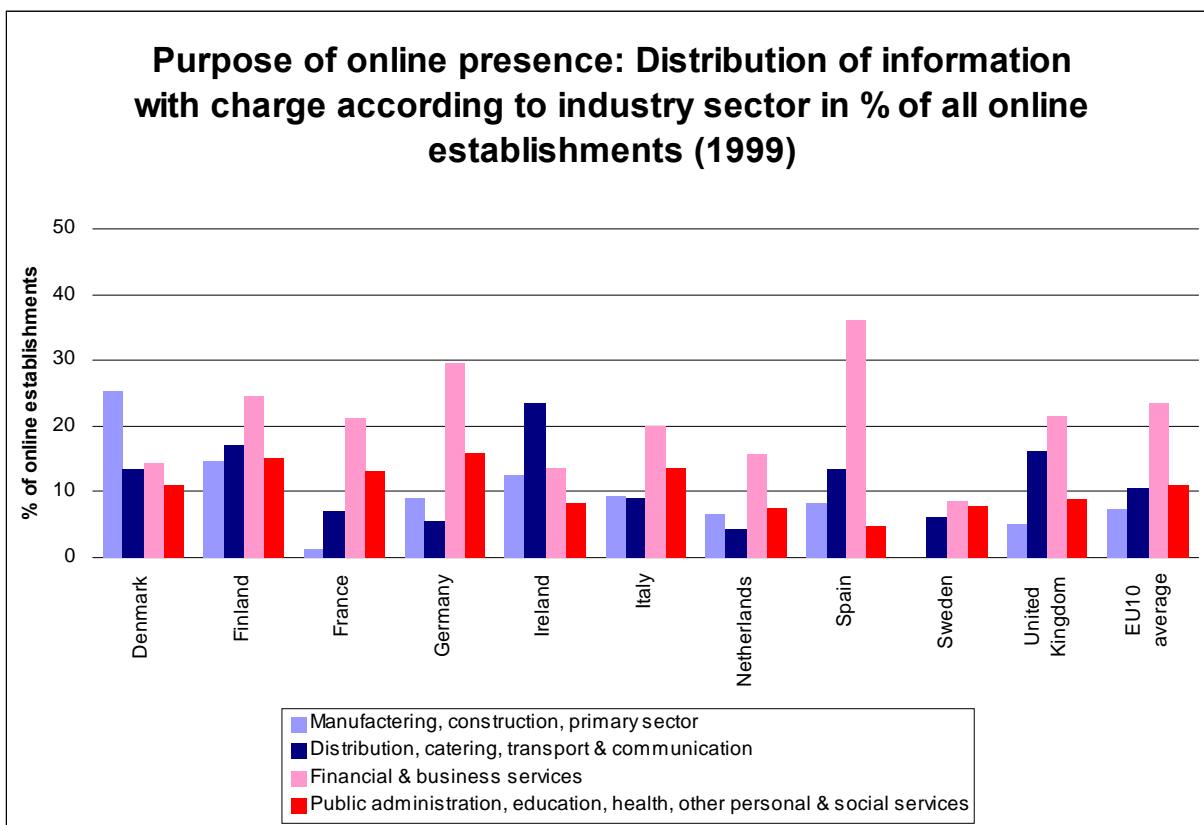
Base: All establishments (n = 4,158), weighted



**TABLE 56: USE OF ONLINE PRESENCE FOR THE SUPPLY OF INFORMATION WITH CHARGE BY SECTOR (IN % OF ALL ONLINE ESTABLISHMENTS)**

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
<b>Denmark</b>	25.3	19.6	13.5	24.2	14.3	18.4	11.0	17.6
<b>Finland</b>	14.6	34.3	17.1	22.7	24.6	39.7	15.2	22.6
<b>France</b>	1.3	12.5	7.0	21.7	21.3	27.3	13.1	29.9
<b>Germany</b>	9.1	19.8	5.6	10.9	29.5	30.5	15.8	14.6
<b>Ireland</b>	12.7	18.5	23.5	32.1	13.5	26.2	8.4	17.1
<b>Italy</b>	9.3	15.2	9.0	17.1	20.1	36.1	13.7	14.4
<b>Netherlands</b>	6.5	17.0	4.4	7.5	15.6	15.9	7.5	16.5
<b>Spain</b>	8.4	14.7	13.4	18.8	36.1	44.1	4.8	18.0
<b>Sweden</b>	0.0	2.0	6.0	7.5	8.5	12.0	7.8	8.5
<b>U.K.</b>	5.0	13.2	16.2	22.7	21.3	25.0	8.8	17.2
<b>EUR10</b>	7.3	16.1	10.5	17.4	23.4	27.9	11.1	16.5

Base: All establishments with online presence (n = 1,835), weighted

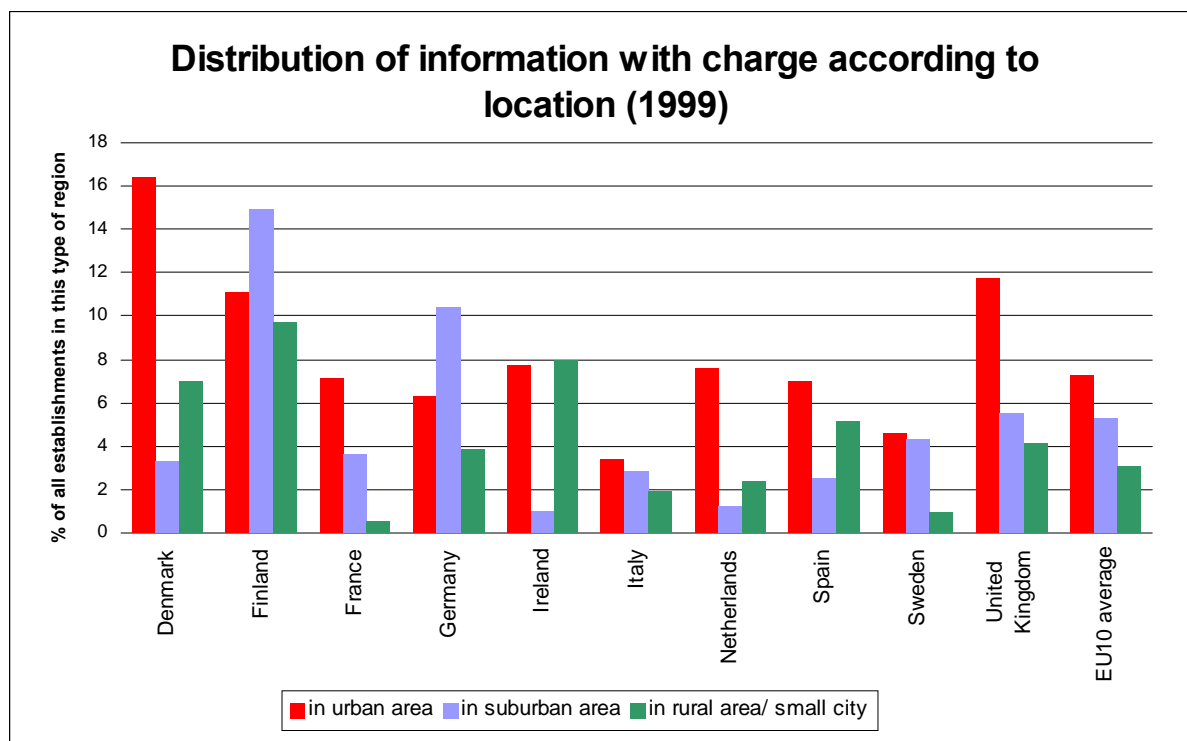


c) *Differentiation by establishment location*

**TABLE 57: USE OF ONLINE PRESENCE FOR THE SUPPLY OF INFORMATION WITH CHARGE BY ESTABLISHMENT LOCATION (IN %)**

	in large cities		in suburban area		in rural area or small city	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	16.4	8.1	3.3	6.5	7.0	3.5
<b>Finland</b>	11.1	15	14.9	1.1	9.7	11.5
<b>France</b>	7.1	10.5	3.6	10.6	0.5	5.3
<b>Germany</b>	6.3	6.6	10.4	7.6	3.8	6.3
<b>Ireland</b>	7.7	10.4	1.0	3.4	8.0	7.2
<b>Italy</b>	3.4	4.6	2.8	6.8	1.9	2.5
<b>Netherlands</b>	7.6	4.3	1.2	11.0	2.4	4.0
<b>Spain</b>	7.0	10.5	2.5	5.0	5.1	4.2
<b>Sweden</b>	4.6	1.6	4.3	2.9	0.9	0.9
<b>U.K.</b>	11.7	9.2	5.5	6.3	4.1	6.1
<b>EUR10</b>	7.3	7.7	5.3	7.2	3.1	5.3

Base: All establishments (n = 4,158), weighted



## 2.2.5 Data exchange with suppliers and business clients

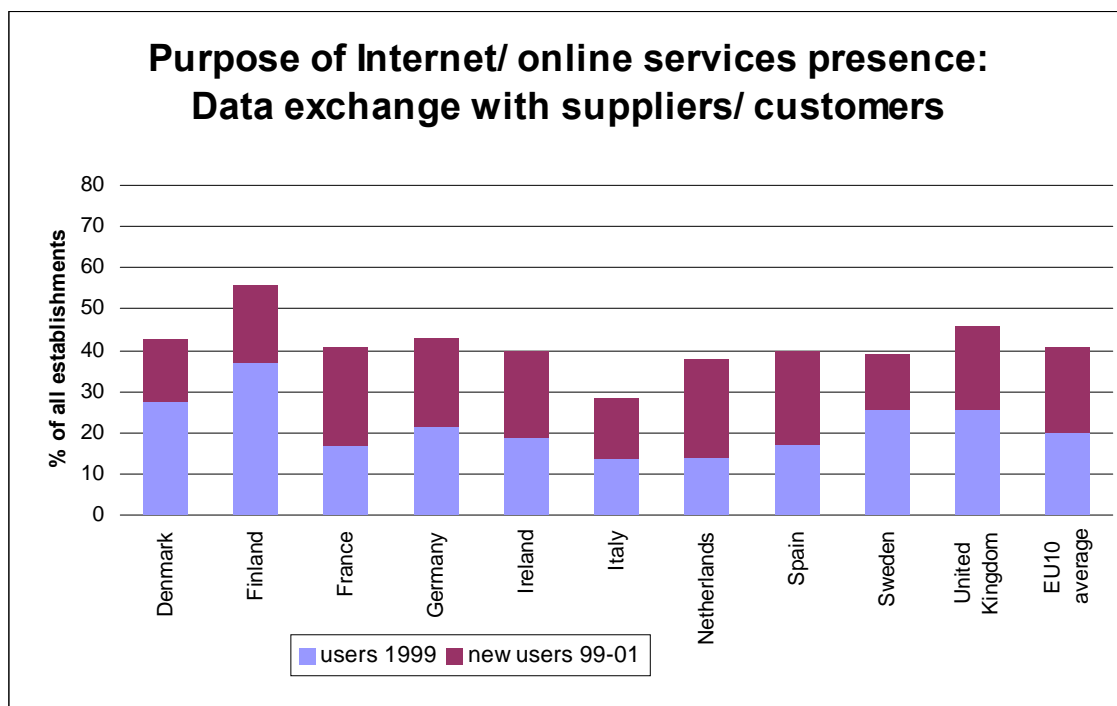
In the business-to-business field Electronic Commerce often takes the form of data exchange between establishments in a supply chain. Through an optimisation of information exchange at the interfaces of the supply chain, they are becoming more efficient and more flexible, ie they can react more quickly to external impulses like fluctuations in demand. Data exchange represents the first step to such an optimisation, integration of business processes stretching across organisations' boundaries represents the second, advanced step (see below).

20% of all EUR10 establishments, ie 48% of all establishments with an online presence, have already recognised this potential and therefore practise data exchange with forward and backward linkages in the supply chain (suppliers and clients). German establishments are just above average with 22%. By 2001 their number will have risen to 43% of all establishments (63% of establishments with an online presence). Germany will then be ranked third of the countries. This is the best position for Germany of any of the variables in this survey.

**TABLE 58: USE OF ONLINE PRESENCE FOR DATA EXCHANGE WITH SUPPLIERS/BUSINESS CLIENTS (IN %)**

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
<b>Denmark</b>	27.6	14.9	42.5	2	4
<b>Finland</b>	36.9	18.9	55.8	1	1
<b>France</b>	16.6	24.0	40.6	8	5
<b>Germany</b>	21.6	21.5	43.1	5	3
<b>Ireland</b>	18.9	21.0	39.9	6	6
<b>Italy</b>	13.4	14.7	28.1	10	10
<b>Netherlands</b>	14.0	23.7	37.7	9	9
<b>Spain</b>	17.1	22.7	39.8	7	7
<b>Sweden</b>	25.4	13.7	39.1	4	8
<b>U.K.</b>	25.6	20.2	45.8	3	2
<b>EUR10</b>	19.9	20.5	40.4		

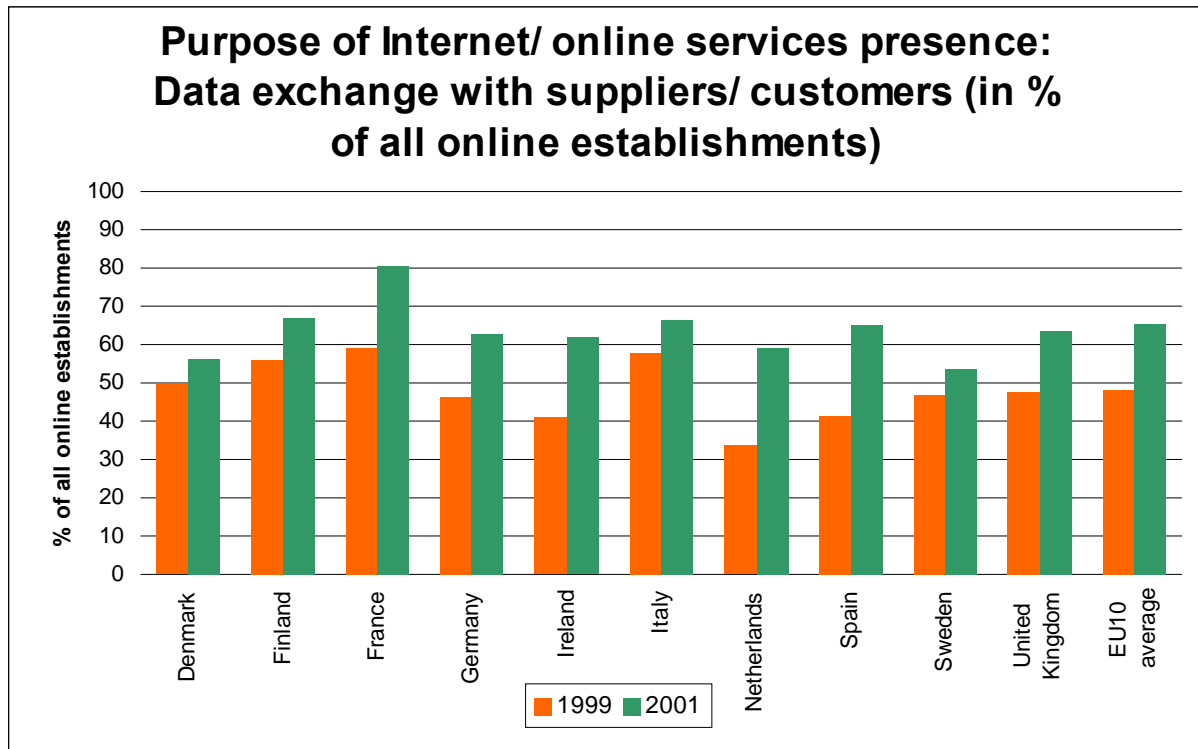
**Base: All establishments (n = 4,158), weighted**



**TABLE 59: USE OF ONLINE PRESENCE FOR DATA EXCHANGE WITH SUPPLIERS/BUSINESS CLIENTS (IN % OF ALL ONLINE ESTABLISHMENTS)**

	1999	2001
<b>Denmark</b>	49.6	56.4
<b>Finland</b>	55.8	66.7
<b>France</b>	59.3	80.4
<b>Germany</b>	46.2	62.7
<b>Ireland</b>	41.0	62.0
<b>Italy</b>	57.5	66.6
<b>Netherlands</b>	33.6	59.2
<b>Spain</b>	41.2	64.8
<b>Sweden</b>	46.9	53.9
<b>U.K.</b>	47.9	63.7
<b>EUR10</b>	48.1	65.4

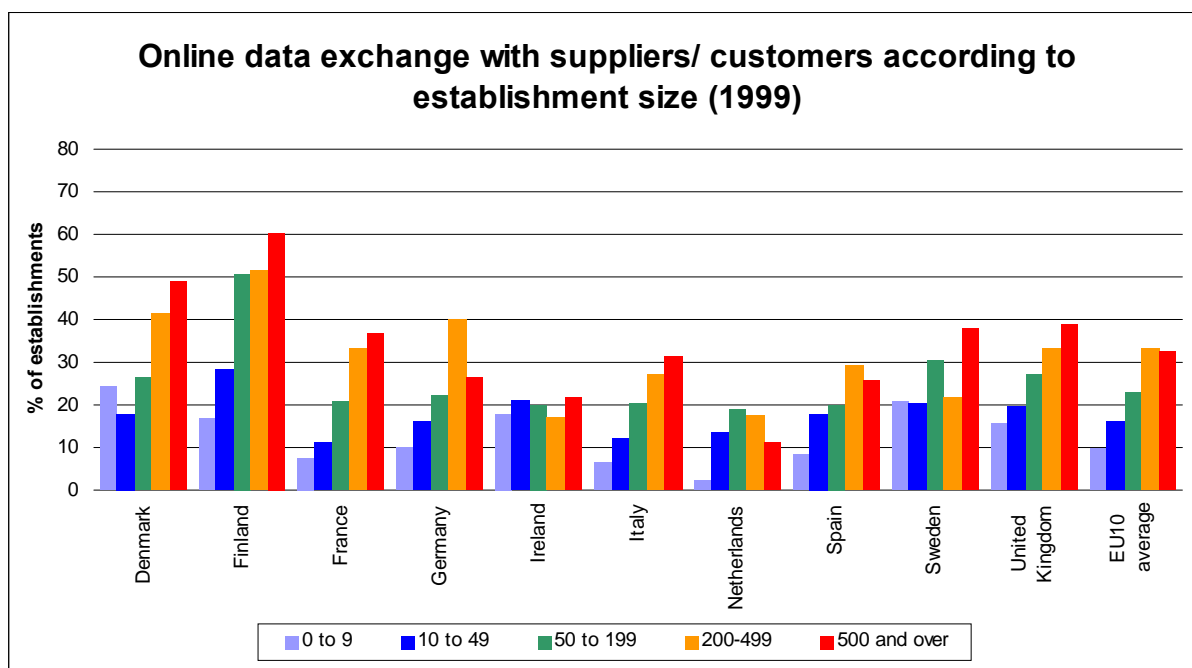
Base: All establishments with online presence (n = 1,835), weighted



a) *Differentiation by establishment size***TABLE 60: USE OF ONLINE PRESENCE FOR DATA EXCHANGE WITH SUPPLIERS/BUSINESS CLIENTS BY ESTABLISHMENT SIZE (IN %)**

	0 to 9		10 to 49		50 to 199		200 to 499		500 and more	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	24.2	15.1	18.0	14.0	26.5	16.7	41.4	17.2	49.1	4.0
<b>Finland</b>	16.8	22.8	28.1	16.5	50.7	22.7	51.4	12.5	60.4	9.6
<b>France</b>	7.6	13.4	10.9	25.1	20.6	37	33.3	24.1	36.9	28.9
<b>Germany</b>	10.1	19.3	15.9	26.0	22.2	33.8	39.9	13.4	26.4	11.1
<b>Ireland</b>	17.9	14.2	21.1	14.1	20.0	28.2	17.2	31.8	21.7	30.5
<b>Italy</b>	6.6	15.7	12.3	19.9	20.4	9.1	27.3	7.6	31.6	15.0
<b>Netherlands</b>	2.1	25.5	13.6	24.7	18.8	23.8	17.6	20.3	11.1	27.8
<b>Spain</b>	8.3	20.9	17.7	21.7	19.9	25.9	29.2	28.1	25.6	17.8
<b>Sweden</b>	20.8	10.2	20.4	16.3	30.3	10.5	21.7	24.3	37.9	11.9
<b>U.K.</b>	15.8	17.0	19.7	21.0	27.1	21.0	33.1	22.4	39.0	18.4
<b>EUR10</b>	9.7	17.2	15.9	22.6	23.0	25.7	33.2	18.6	32.4	16.7

Base: All establishments (n = 4,158), weighted



*b) Differentiation by sector*

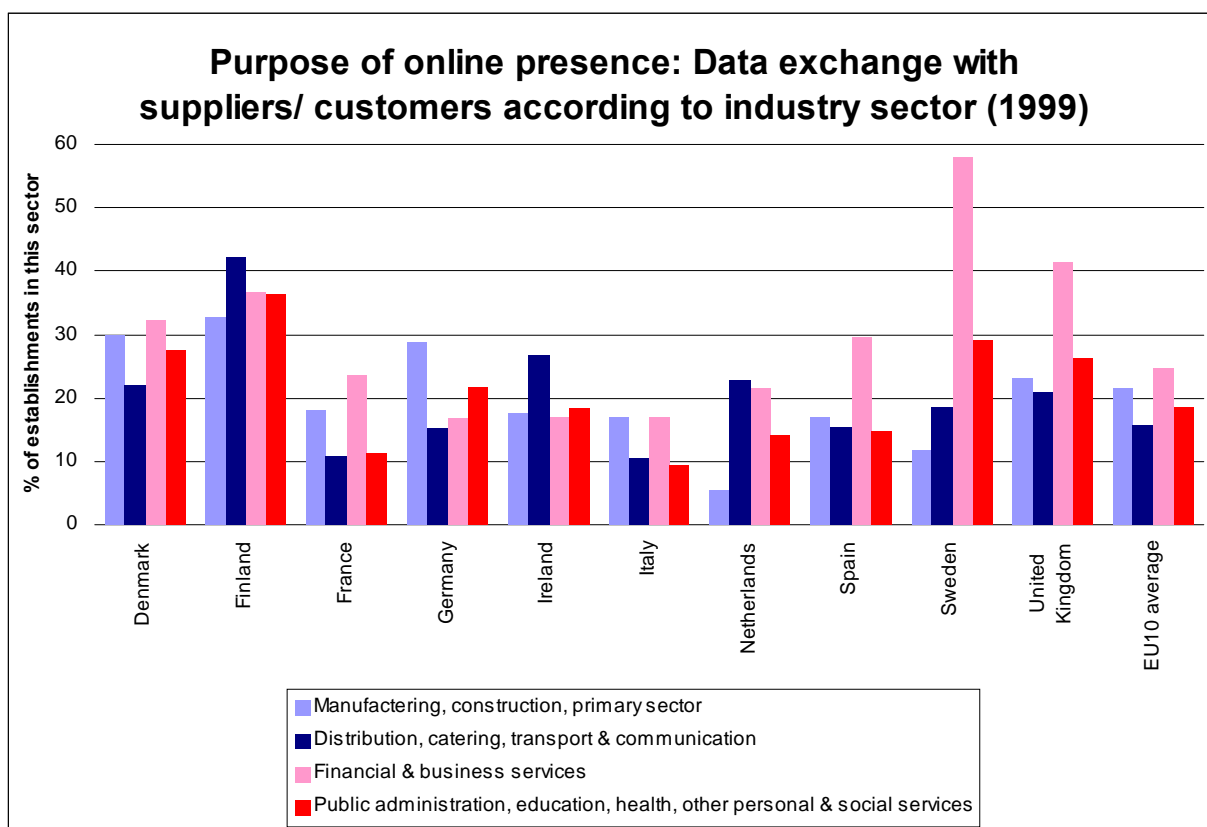
Differentiation by business sectors gives a very different picture for the various countries. Only in Germany and Denmark does the manufacturing industry slightly distance itself from the other sectors, however as a whole all industries show a similar spread of data exchange between partners in a supply chain. Traditionally integrated data exchange was spread in only a few sectors, which were made up of a small number of large and many small organisations (wholesale trade, retail trade, car industry, banking), because the setting up of the necessary technological systems (often based on EDI) requires an extensive financial and organisational effort. The Internet on the other hand enables data exchange across platforms with much lower requirements for standardisation, and therefore enables many establishments to integrate their supply chains across individual organisation's boundaries for the first time.

The present result confirms this effect of the Internet: In Europe, diffusion rates for online data exchange amongst establishments which already have an online presence are at a similar level of between 43% and 53%.

**TABLE 61: USE OF ONLINE PRESENCE FOR DATA EXCHANGE WITH SUPPLIERS/BUSINESS CLIENTS BY SECTOR (IN %)**

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
<b>Denmark</b>	29.9	48.9	22.0	38.3	32.3	42.0	27.5	40.8
<b>Finland</b>	32.7	61.5	42.2	57.3	36.8	62.2	36.4	48.1
<b>France</b>	18.1	44.6	10.7	32.5	23.5	49.2	11.3	30.1
<b>Germany</b>	28.7	46.8	15.2	43.7	16.7	36.5	21.7	43.4
<b>Ireland</b>	17.5	40.9	26.6	37.0	17.0	49.0	18.3	30.8
<b>Italy</b>	16.9	39.7	10.5	22.7	17.0	28.7	9.5	16.6
<b>Netherlands</b>	5.6	34.8	22.9	45.8	21.4	42.8	14.2	35.0
<b>Spain</b>	17.1	42.8	15.5	35.0	29.5	56.5	14.7	35.5
<b>Sweden</b>	11.8	38.9	18.6	28.6	57.8	61.2	29.1	37.9
<b>U.K.</b>	23.1	43.4	21.0	46.1	41.3	54.6	26.2	42.6
<b>EUR10</b>	21.5	43.7	15.8	37.5	24.6	44.1	18.7	35.1

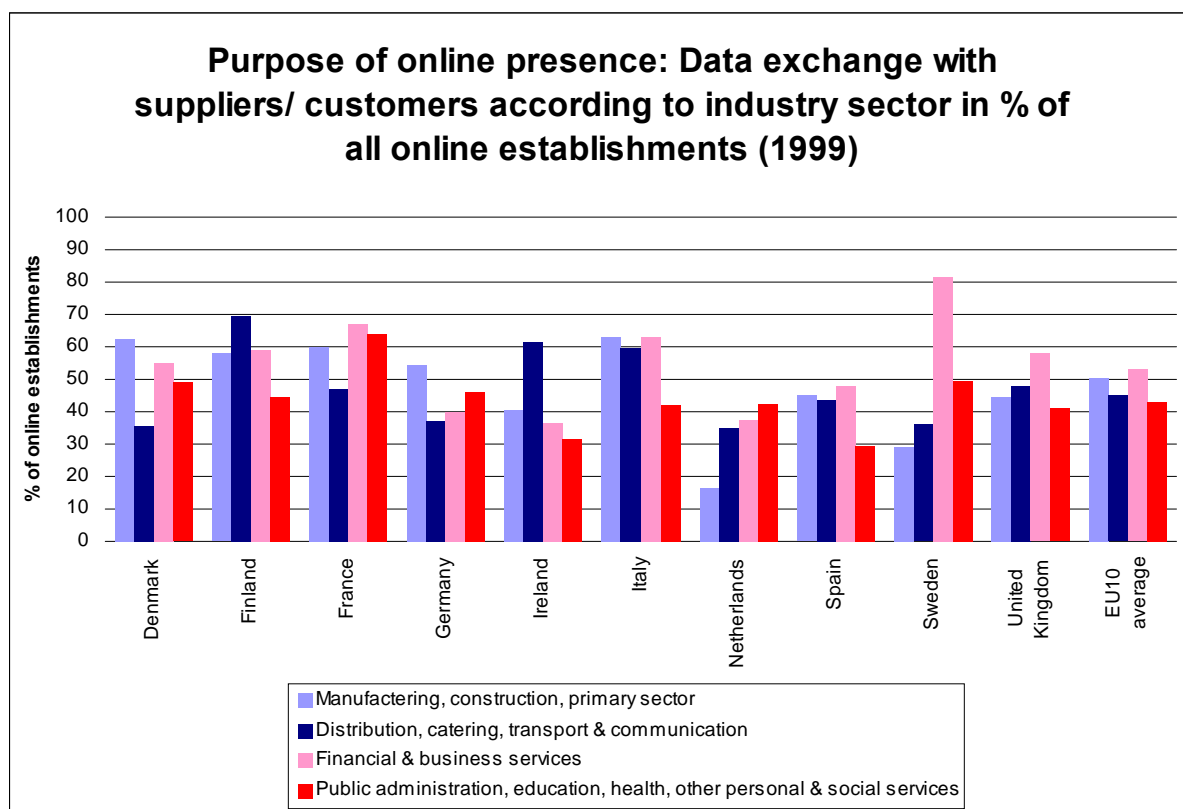
**Base: All establishments (n = 4,158), weighted**



**TABLE 62: USE OF ONLINE PRESENCE FOR DATA EXCHANGE WITH SUPPLIERS/BUSINESS CLIENTS BY SECTOR (IN %OF ALL ONLINE ESTABLISHMENTS)**

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
<b>Denmark</b>	62.6	67.9	35.3	48.7	55.1	55.5	48.8	53.5
<b>Finland</b>	58.1	74.5	69.4	74.9	59.1	87.2	44.4	50.4
<b>France</b>	59.9	85.8	46.9	78.3	66.8	79.0	64.2	73.1
<b>Germany</b>	54.3	66.7	37.2	65.1	39.8	62.9	45.8	54.0
<b>Ireland</b>	40.3	65.7	61.3	67.4	36.5	69.4	31.5	40.9
<b>Italy</b>	63.1	80.2	59.3	70.5	63.2	66.9	42.0	39.2
<b>Netherlands</b>	16.6	58.5	34.9	59.4	37.5	54.5	42.6	62.7
<b>Spain</b>	45.1	72.4	43.4	60.9	48.1	74.6	29.5	53.3
<b>Sweden</b>	29.2	56.2	35.8	41.9	81.5	76.4	49.7	51.1
<b>U.K.</b>	44.3	61.0	48.1	70.8	58.0	65.9	41.2	54.3
<b>EUR10</b>	50.7	69.5	44.8	67.4	52.8	68.1	43.2	53.7

**Base: All establishments with online presence (n = 1,835), weighted**

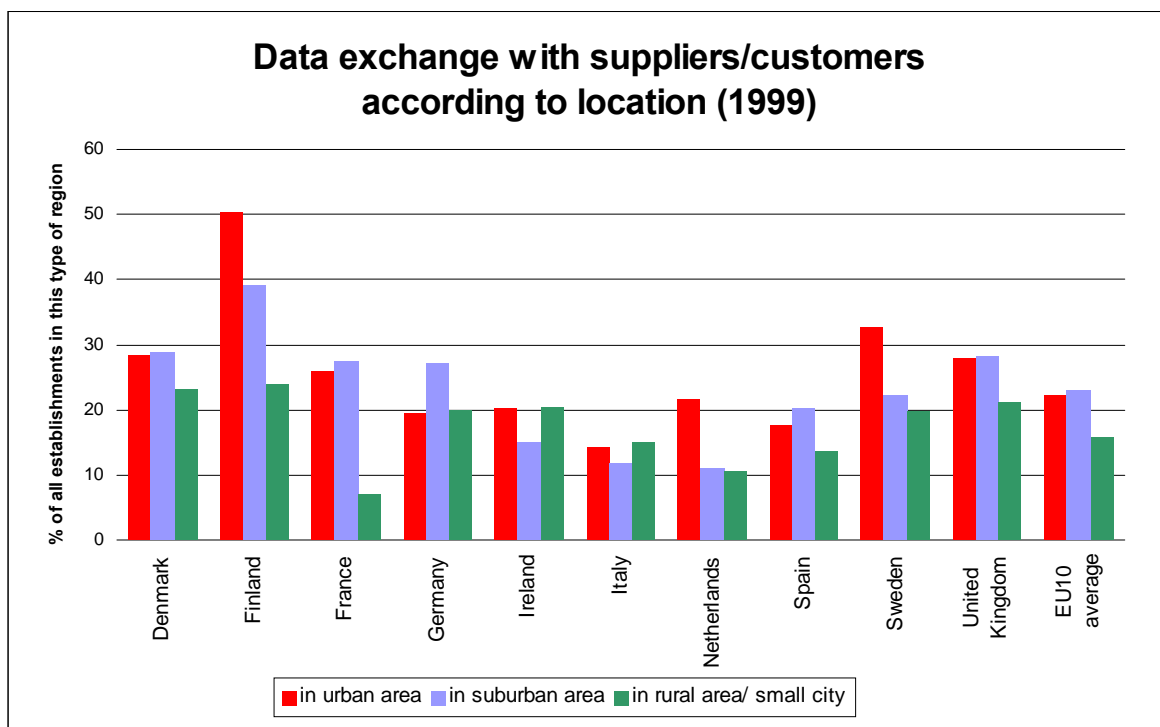


c) *Differentiation by establishment location*

**TABLE 63: USE OF ONLINE PRESENCE FOR DATA EXCHANGE WITH SUPPLIERS/BUSINESS CLIENTS BY ESTABLISHMENT LOCATION (IN %)**

	in large cities		in suburban area		in rural area or small city	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	28.3	10.7	28.9	16.3	23.2	18.3
<b>Finland</b>	50.3	13.5	39	14.9	24	24.8
<b>France</b>	25.8	20.6	27.3	26.5	6.9	24.7
<b>Germany</b>	19.5	21.3	27.1	19.7	19.9	23.0
<b>Ireland</b>	20.1	29.9	15.0	26.0	20.5	9.2
<b>Italy</b>	14.3	14.5	11.6	14.8	14.9	14.8
<b>Netherlands</b>	21.7	23.9	11.0	31.7	10.4	18.4
<b>Spain</b>	17.7	26.1	20.2	17.4	13.8	22.9
<b>Sweden</b>	32.5	13.0	22.2	14.9	19.6	13.0
<b>U.K.</b>	27.9	18.9	28.1	22.4	21.2	18.8
<b>EUR10</b>	22.1	20.0	22.8	20.4	15.7	20.9

Base: All establishments (n = 4,158), weighted



### 2.2.6 Joint business processes with suppliers and other business partners

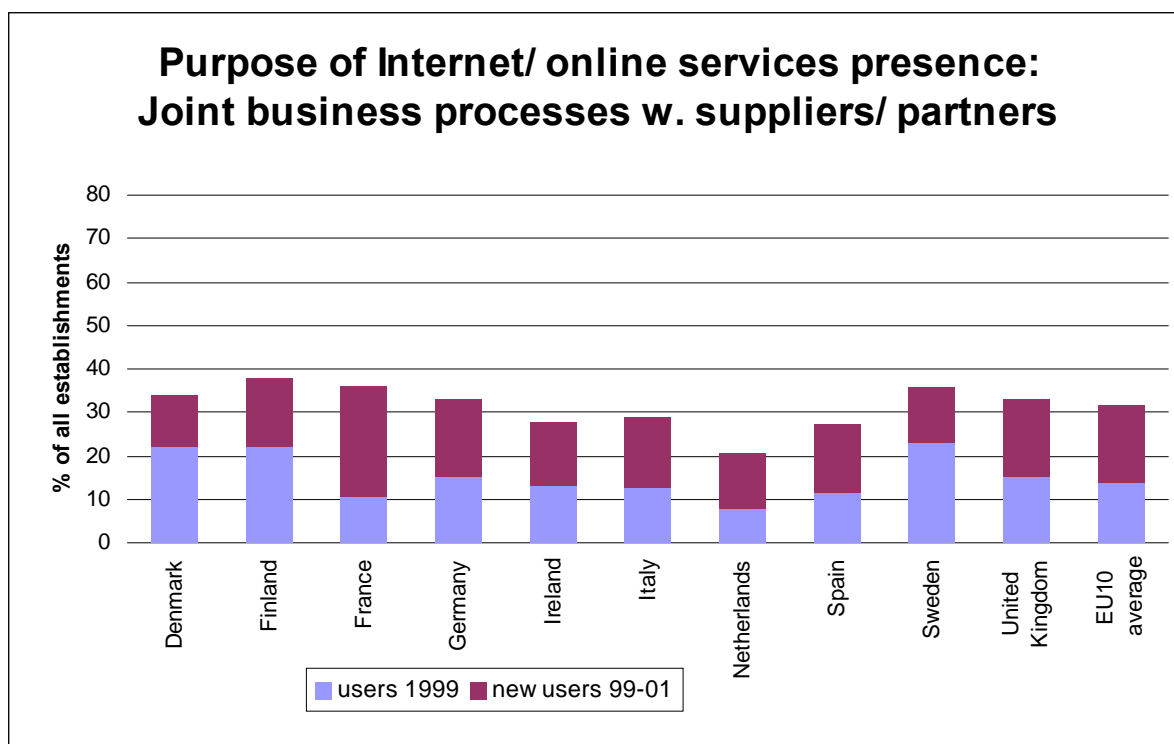
If, for example, production processes are optimised individual organisation’s boundaries are no longer relevant. In contrast to simple data exchange between those taking part in the supply chain, joint processes mean the continuous optimisation of processes where the required data is automatically made available to all those involved according to their individual needs.

Implementation of joint business processes demands a higher design and organisational effort than simple electronic data exchange between establishments. Accordingly it is practised by a smaller number of establishments. However, 15% of German establishments are involved and a further 18% have actual plans for implementation over the next 2 years. Growth rates here are higher than those for data exchange with suppliers/clients.

**TABLE 64: USAGE OF ONLINE PRESENCE FOR JOINT BUSINESS PROCESSES (IN %)**

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
<b>Denmark</b>	22.1	12.0	34.1	3	4
<b>Finland</b>	22.3	15.8	38.1	2	1
<b>France</b>	10.8	25.2	36.0	9	2
<b>Germany</b>	15.2	17.7	32.9	4	5
<b>Ireland</b>	13.1	14.5	27.6	6	8
<b>Italy</b>	12.6	16.5	29.1	7	7
<b>Netherlands</b>	8.0	12.7	20.7	10	10
<b>Spain</b>	11.5	15.7	27.2	8	9
<b>Sweden</b>	22.9	12.7	35.6	1	3
<b>U.K.</b>	15.0	17.9	32.9	5	5
<b>EUR10</b>	13.7	18.0	31.7		

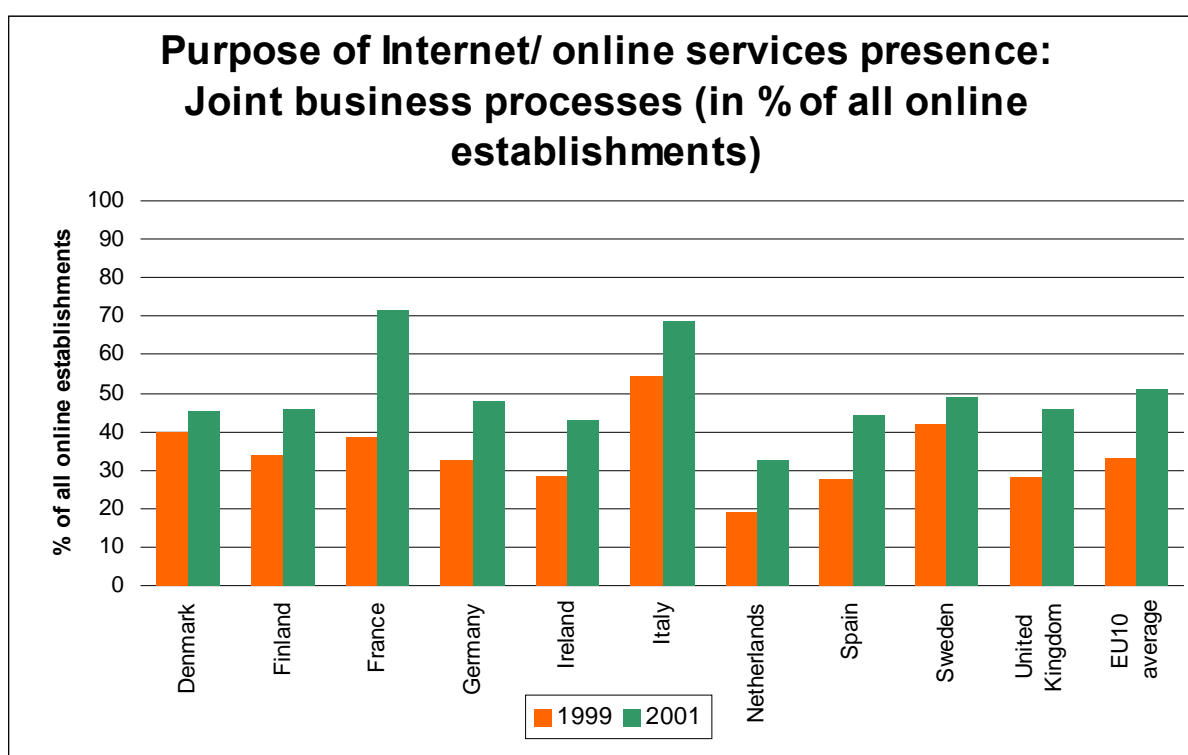
Base: All establishments (n = 4,158), weighted



**TABLE 65: USAGE OF ONLINE PRESENCE FOR JOINT BUSINESS PROCESSES (IN % OF ALL ONLINE ESTABLISHMENTS)**

	1999	2001
Denmark	39.7	45.2
Finland	33.7	45.5
France	38.6	71.3
Germany	32.5	47.9
Ireland	28.4	42.9
Italy	54.1	69.0
Netherlands	19.2	32.5
Spain	27.7	44.3
Sweden	42.3	49.0
U.K.	28.1	45.8
EUR10	33.1	51.3

Base: All establishments with online presence (n = 1,835), weighted



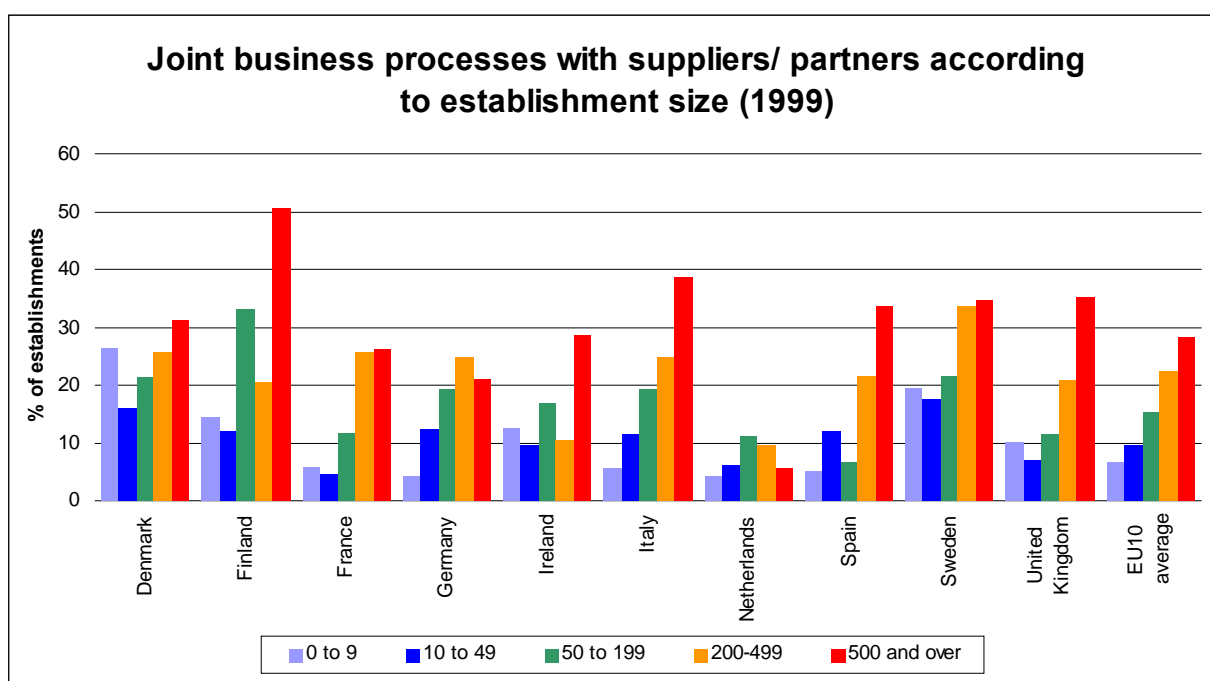
#### a) Differentiation by establishment size

For all countries it is true that the proportion of establishments which use online services for joint business processes with suppliers and business partners increases with increasing establishment size. This correlation can also be seen in Germany with the exception of large establishments with more than 500 employees which in contrast to the medium sized establishments (200 - 499) lag behind. This corresponds to the result relating to data exchange with suppliers/clients (see above).

**TABLE 66: USE OF ONLINE PRESENCE FOR JOINT BUSINESS PROCESSES BY ESTABLISHMENT SIZE (IN %)**

	0 to 9		10 to 49		50 to 199		200 to 499		500 and more	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	26.4	13.8	16.1	10.1	21.4	13.7	25.5	12.6	31.1	4.0
<b>Finland</b>	14.3	17.0	12.1	13.0	33.1	14.3	20.5	27.8	50.8	9.6
<b>France</b>	5.8	16.1	4.6	27.2	11.8	33.8	25.7	21.3	26.1	42.8
<b>Germany</b>	4.4	15.0	12.3	16.0	19.3	30.2	24.8	14.5	21.0	12.4
<b>Ireland</b>	12.6	12.6	9.5	8.4	16.8	10.7	10.4	27.1	28.5	18.2
<b>Italy</b>	5.7	17.0	11.5	21.6	19.2	10.8	24.7	12.8	38.7	15.0
<b>Netherlands</b>	4.3	10.6	6.2	9.9	11.3	16.3	9.5	13.5	5.6	11.1
<b>Spain</b>	5.2	13.8	12.0	14.7	6.6	20.4	21.5	21.8	33.7	5.4
<b>Sweden</b>	19.6	15.5	17.7	10.6	21.5	11.8	33.5	16.6	34.7	11.1
<b>U.K.</b>	10.2	13.5	7.0	15.1	11.5	18.3	20.8	25.3	35.2	18.4
<b>EUR10</b>	6.7	15.2	9.5	17.7	15.1	22.5	22.4	18.8	28.4	17.3

Base: All establishments (n = 4,158), weighted



b) *Differentiation by sector*

TABLE 67: USE OF ONLINE PRESENCE FOR JOINT BUSINESS PROCESSES BY SECTOR (IN %)

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
<b>Denmark</b>	28.3	41.7	19.6	37.4	22.9	31.2	18.8	27.7
<b>Finland</b>	19.0	47.1	31.3	44.9	24.3	43.5	16.5	22.5
<b>France</b>	9.1	36.4	8.6	30.3	16.0	43.1	7.8	32.5
<b>Germany</b>	17.9	39.4	12.7	31.7	9.4	24.1	18.6	30.1
<b>Ireland</b>	16.5	29.4	8.5	23.4	16.1	38.8	8.2	17.9
<b>Italy</b>	16.5	39.3	6.6	19.6	17.4	31.8	11.2	23.7
<b>Netherlands</b>	5.6	21.3	17.1	31.4	12.5	21.4	5.0	16.7
<b>Spain</b>	10.0	28.1	11.4	26.4	19.8	37.6	11.2	22.9
<b>Sweden</b>	13.3	40.8	17.3	27.3	57.8	61.2	21.1	29.2
<b>U.K.</b>	12.6	31.4	12.9	35.0	25.2	37.6	15.0	29.2
<b>EUR10</b>	14.1	35.5	11.5	29.8	16.7	33.7	13.6	26.4

Base: All establishments (n = 4,158), weighted

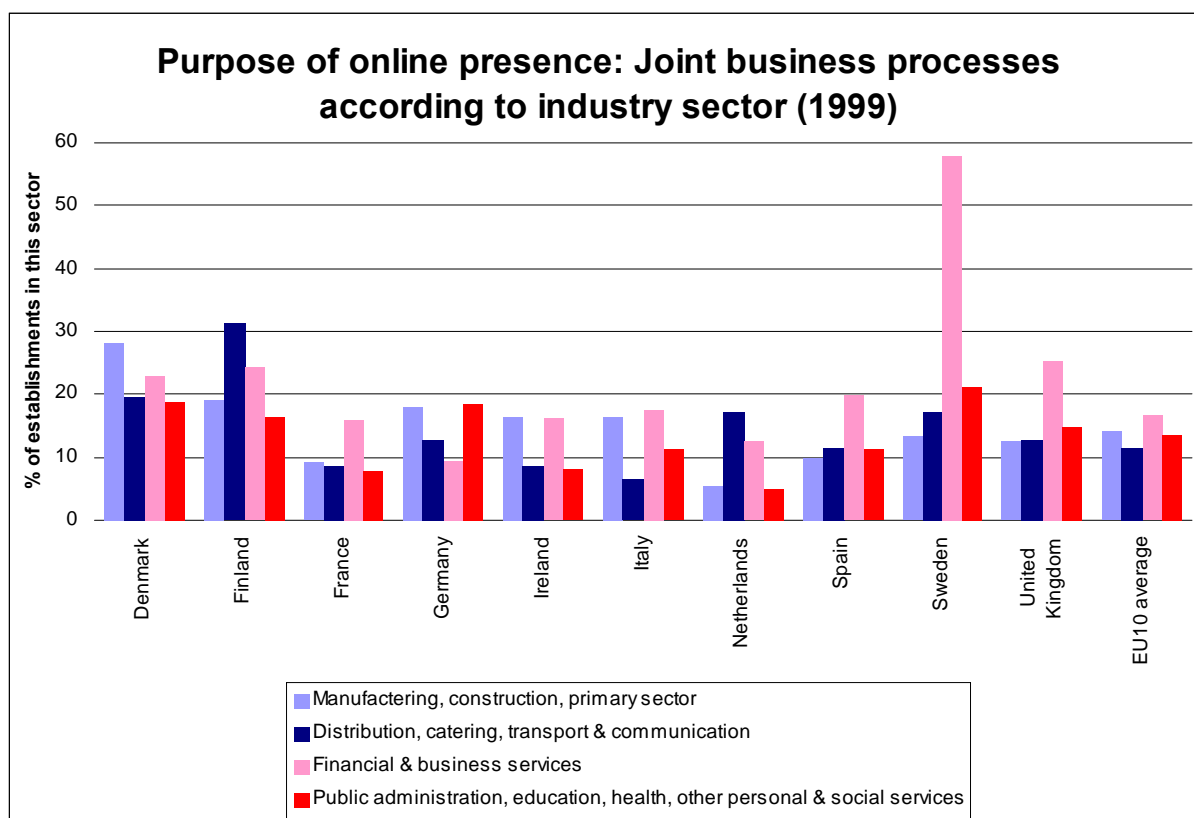
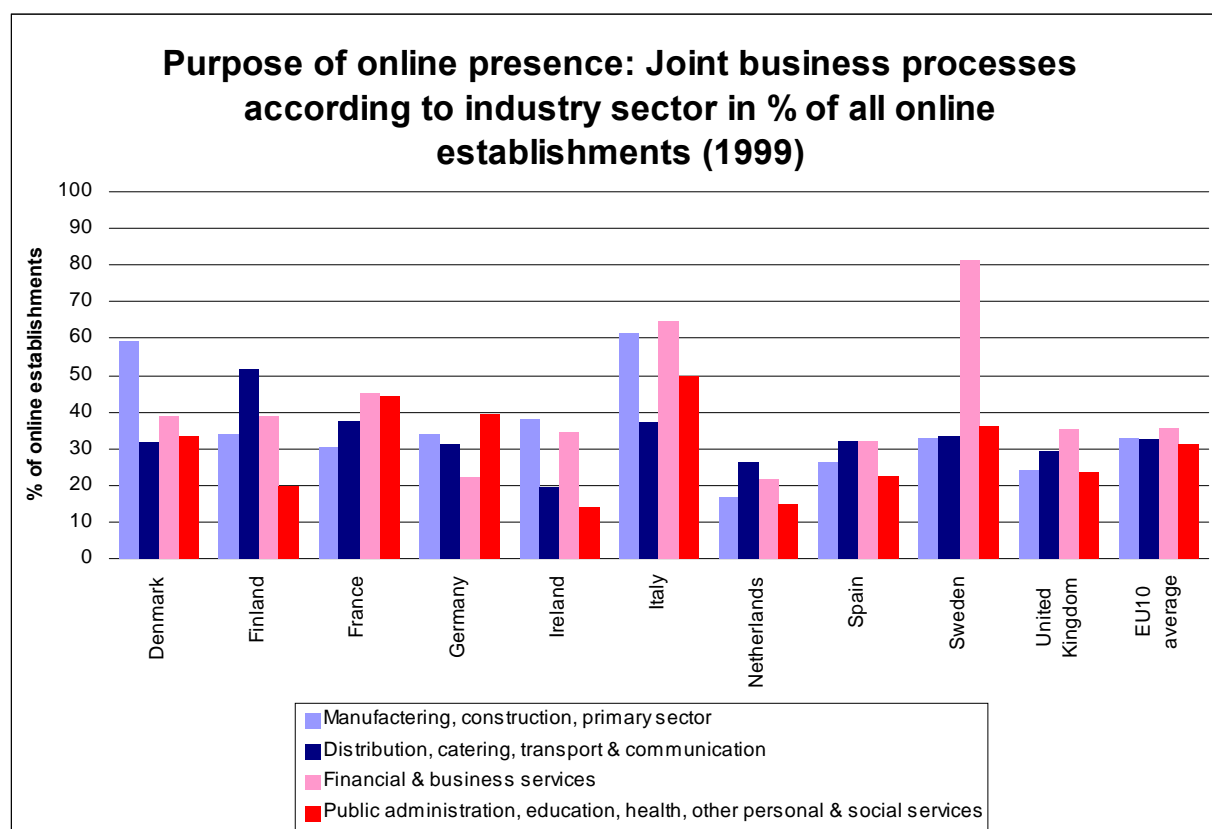


TABLE 68: USE OF ONLINE PRESENCE FOR JOINT BUSINESS PROCESSES BY SECTOR (IN % OF ALL ONLINE ESTABLISHMENTS)

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	1999	2001	1999	2001	1999	2001	1999	2001
Denmark	59.2	57.9	31.5	47.6	39.1	41.2	33.4	36.3
Finland	33.7	57.1	51.5	58.7	39.0	61.0	20.1	23.6
France	30.1	70.0	37.7	73.0	45.5	69.2	44.3	78.9
Germany	33.8	56.1	31.1	47.2	22.4	41.6	39.2	37.5
Ireland	38.0	47.2	19.6	42.6	34.5	55.0	14.1	23.8
Italy	61.6	79.4	37.3	60.9	64.7	74.1	49.6	56.0
Netherlands	16.6	35.8	26.0	40.7	21.9	27.3	15.0	29.9
Spain	26.4	47.5	31.9	45.9	32.3	49.7	22.5	34.4
Sweden	32.9	59.0	33.3	40.0	81.5	76.4	36.0	39.4
U.K.	24.1	44.1	29.5	53.8	35.4	45.4	23.6	37.2
EUR10	33.3	56.4	32.6	53.6	35.8	52.0	31.4	40.4

Base: All establishments with online presence (n = 1,835), weighted



## 2.3 Barriers to the use of the Internet for the supply of products and services

We expressly asked all establishments which neither practise online selling today nor plan to do so over the next 2 years for the most important reasons for non-usage. 42% of the total sample answered defensively that they did not see the need for or any benefit in online selling. In surveys, such an answer can be interpreted as general reluctance to consider the topic seriously.

Amongst the reasons given, ie the actual barriers to online selling (see table/figure), the following were mentioned most often: Certain characteristics of the products/services offered, which according to the decision makers' opinion made online selling impractical (30%), and too little demand in the market for this type of selling (18%). According to estimates of the majority of experts there are almost no products which cannot be marketed on the Internet in one way or another. This leads to the conclusion that a high proportion of the above statements must be due to lack of understanding of the potential of the Internet or other online services. Here extensive explanation is needed which must be provided in the individual countries.

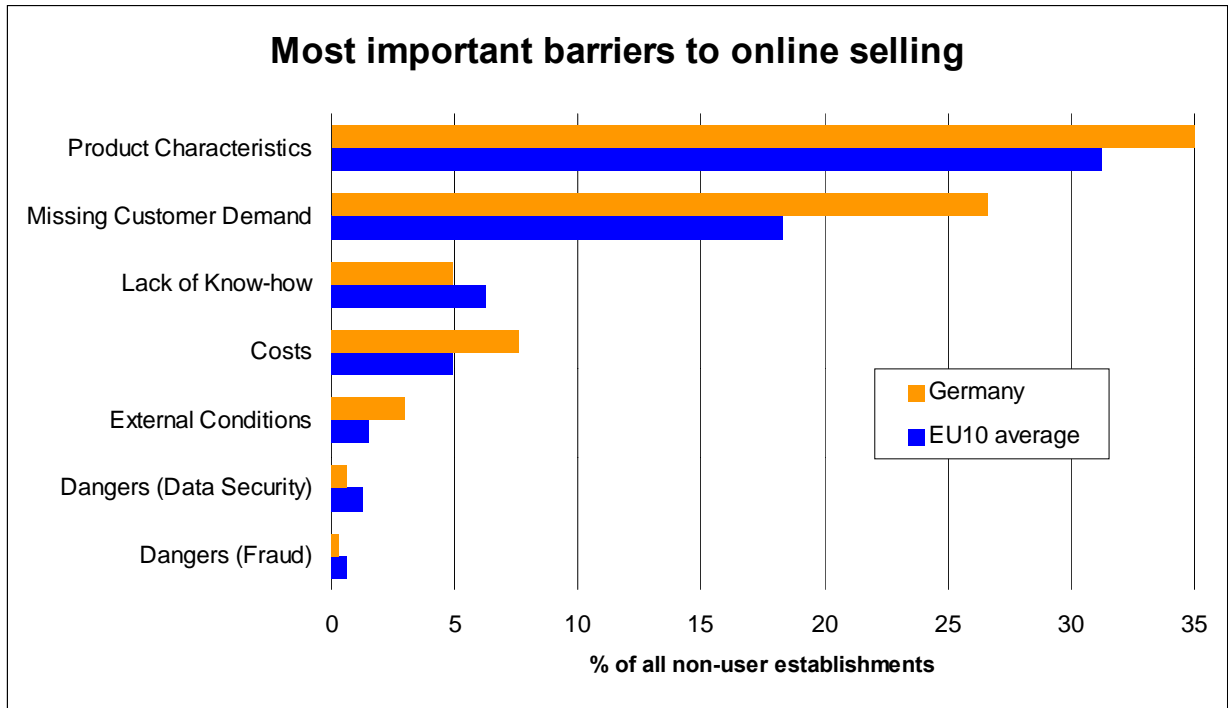
Possible problems and dangers regarding data protection and fraud (1% each) are given by only a very small minority as the most important barriers, more often cost and investment requirements (4%) and lack of know-how (6%) are mentioned. Although this result must in no way be interpreted as if potential problems in the aforementioned areas are not recognised, it still confirms the view that, although security problems might hinder actual implementation or some clients' acceptance, they are currently not crucial elements in a decision for or against Internet selling.

Although between the countries there is some variation in the level of appreciation, the trend is the same everywhere. The illustration below shows the differences between Germany and the total sample. An above average proportion of Germans questioned gave lack of demand as a reason why online selling had not been introduced.

TABLE 69: MOST IMPORTANT BARRIERS TO ONLINE SELLING (IN %)

	Missing customer demand	Costs	Lack of know-how	Dangers (data security)	Dangers (fraud)	Product characteristics	External conditions	Other reasons
Denmark	38.0	3.5	9.6	0.0	0.0	1.5	0.0	0.0
Finland	15.1	2.3	0.0	1.9	0.7	42.3	0.0	4.9
France	15.6	5.7	9.5	1.4	0.4	26.7	1.5	0.7
Germany	26.6	7.6	4.9	0.6	0.3	35.0	3.0	0.0
Ireland	20.9	2.6	2.0	0.4	1.7	15.8	0.2	16.9
Italy	13.7	2.0	4.3	1.1	0.4	24.2	0.0	1.0
Netherlands	16.5	3.7	4.1	3.7	2.8	53.7	5.5	4.1
Spain	9.2	3.1	9.7	2.7	0.8	39.1	0.7	5.5
Sweden	8.7	1.2	4.2	1.8	1.3	40.6	1.1	0.8
U.K.	18.1	5.3	6.6	1.3	0.4	26.0	0.5	3.5
EUR10	18.3	4.9	6.3	1.3	0.6	31.2	1.5	1.9

Base: Establishments that neither practise nor plan online sales (n = 2,913), weighted



## 2.4 Use of the Internet or other online service for procurement

### 2.4.1 Current practice and plans

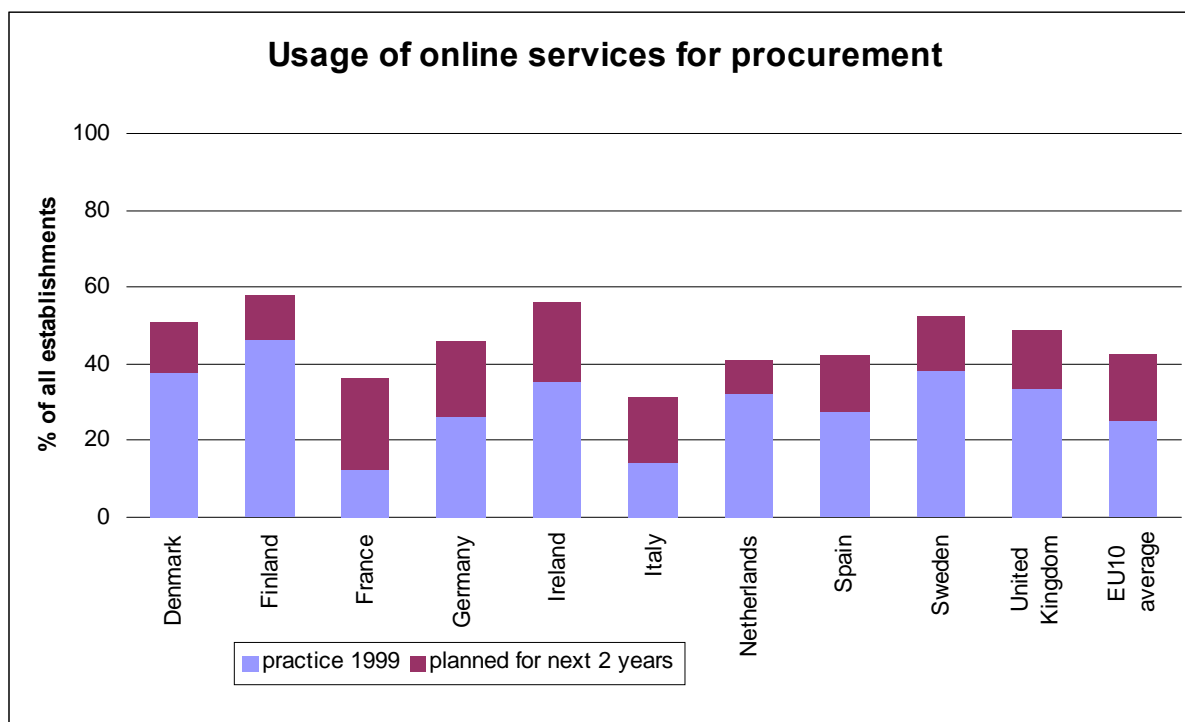
Between 12% (France) and 46% (Finland) of European establishments use online services for the purchase of goods and services. These percentages are significantly higher throughout than the proportion of establishments which already sell online (especially in Sweden, Southern Europe, and Germany), and will remain so in the near future. This shows again that online services such as the Internet are primarily used for transactions between organisations and only secondary in the business-to-consumer field.

French establishments have recognised (late) the potential of the Internet and are now strengthening their position online. If the decision makers' plans are followed through, the number of users of online services for purchasing will treble over the next 2 years. In Germany a further extensive growth is also likely, which will mean that by 2001 the country will have moved from 8<sup>th</sup> position up to 6<sup>th</sup> position in the ranking order.

TABLE 70: USE OF ONLINE SERVICES FOR PROCUREMENT (IN %)

	users 1999	additional users 1999-2001	users 2001	ranking 1999	ranking 2001
<b>Denmark</b>	37.8	13.1	50.9	3	4
<b>Finland</b>	46.2	11.4	57.6	1	1
<b>France</b>	12.4	23.9	36.3	10	9
<b>Germany</b>	26.3	19.8	46.1	8	6
<b>Ireland</b>	35.4	20.5	55.9	4	2
<b>Italy</b>	14.1	16.9	31.0	9	10
<b>Netherlands</b>	32.0	9.0	41.0	6	8
<b>Spain</b>	27.5	14.5	42.0	7	7
<b>Sweden</b>	37.9	14.3	52.2	2	3
<b>U.K.</b>	33.5	14.9	48.4	5	5
<b>EUR10</b>	25.0	17.6	42.6		

Base: All establishments (n = 4,158), weighted

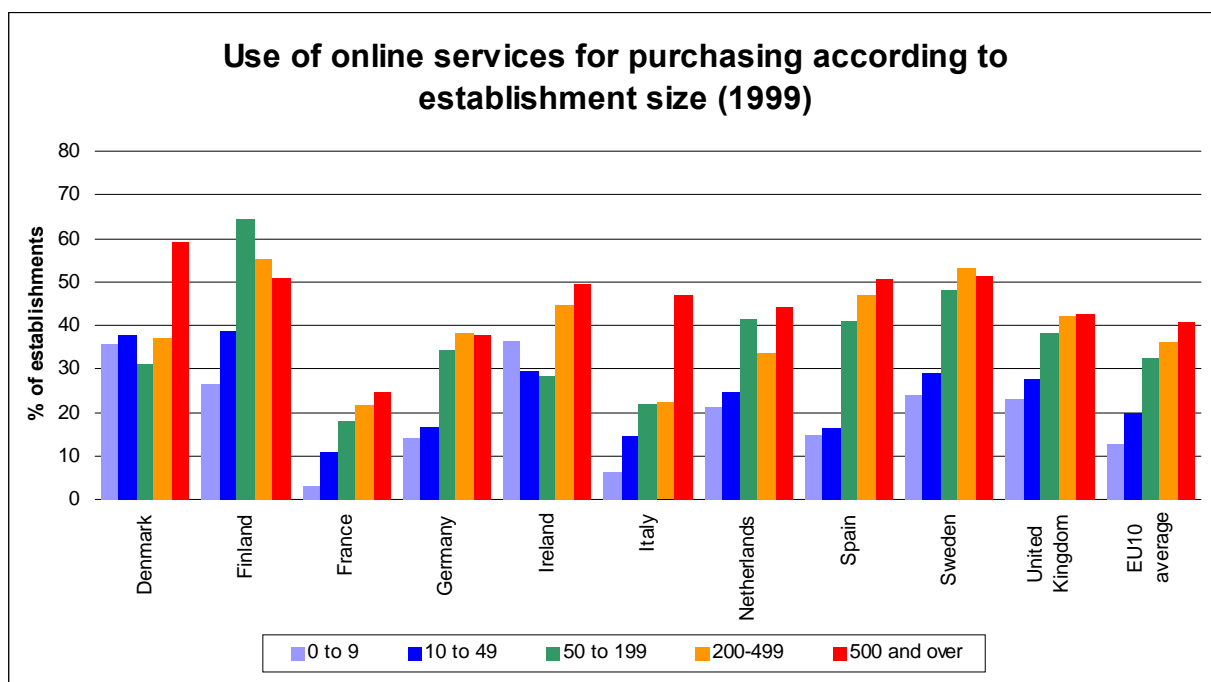


a) *Differentiation by establishment size*

**TABLE 71: USE OF ONLINE SERVICES FOR PROCUREMENT BY NUMBER OF EMPLOYEE (IN %)**

	0 to 9		10 to 49		50 to 199		200 to 499		500 and more	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	35.6	4.9	38.0	11.0	31.3	17.9	37.3	22.7	59.1	8.0
<b>Finland</b>	26.6	17.9	38.6	19.0	64.4	5.0	55.2	3.9	50.8	0.0
<b>France</b>	3.1	21.2	11.1	32.9	18.2	20.7	21.7	16.0	24.8	25.6
<b>Germany</b>	14.0	19.7	16.8	24.3	34.4	19.0	38.1	18.2	38.0	10.9
<b>Ireland</b>	36.4	18.9	29.3	26.9	28.3	26.4	44.6	13.8	49.5	11.1
<b>Italy</b>	6.4	20.1	14.6	14.5	21.9	16.5	22.2	15.1	47.0	0.7
<b>Netherlands</b>	21.3	6.4	24.7	7.4	41.3	10.0	33.8	12.2	44.4	5.6
<b>Spain</b>	14.9	18.8	16.2	17.4	40.9	7.5	47.2	13.1	50.6	8.8
<b>Sweden</b>	24.1	12.3	28.9	20.3	48.3	11.9	53.2	7.7	51.3	14.7
<b>U.K.</b>	23.0	12.8	27.5	20.3	38.4	15.3	42.0	8.2	42.6	17.7
<b>EUR10</b>	12.7	18.2	19.7	21.6	32.6	16.0	36.2	13.9	40.7	13.4

Base: All establishments (n = 4,158), weighted

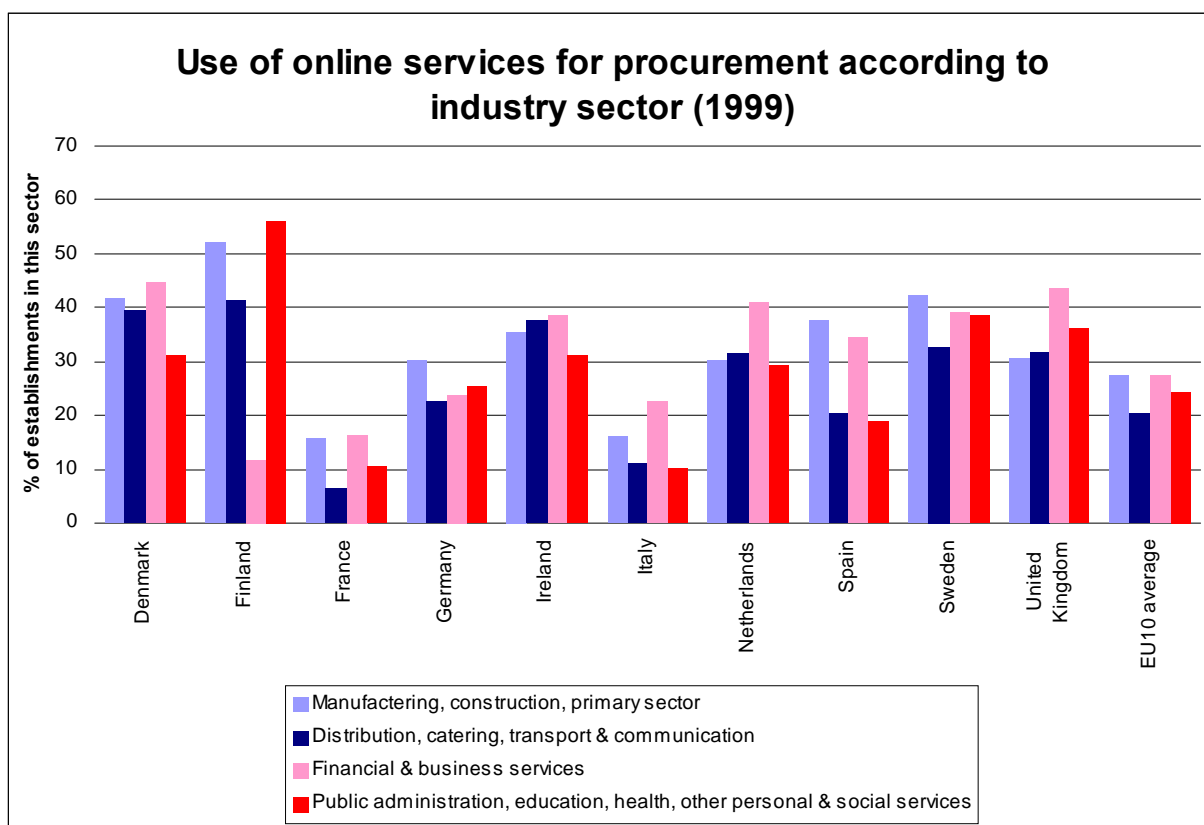


*b) Differentiation by sector*

**TABLE 72: USE OF ONLINE SERVICES FOR PROCUREMENT BY SECTOR (IN %)**

	Manufacturing etc.		Distribution, transport & communications		Financial & business services		Public sector etc.	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	41.7	14.0	39.5	11.6	44.6	11.7	31.2	14.1
<b>Finland</b>	52.0	4.3	41.2	20.7	11.8	18.1	56.0	8.1
<b>France</b>	15.6	19.3	6.4	29.4	16.4	22.7	10.6	24.4
<b>Germany</b>	30.2	23.2	22.4	19.9	23.8	14.4	25.4	18.7
<b>Ireland</b>	35.4	21.6	37.5	18.8	38.6	21.6	31.0	16.2
<b>Italy</b>	16.1	19.9	11.0	17.2	22.6	19.4	10.3	11.0
<b>Netherlands</b>	30.3	6.7	31.4	5.7	41.1	10.7	29.2	10.8
<b>Spain</b>	37.7	10.7	20.2	17.2	34.5	10.6	18.7	18.6
<b>Sweden</b>	42.4	23.5	32.8	12.1	39.1	10.4	38.5	11.3
<b>U.K.</b>	30.4	19.4	31.7	14.4	43.4	14.0	36.2	5.3
<b>EUR10</b>	27.5	18.9	20.5	19.1	27.3	16.5	24.5	14

Base: All establishments (n = 4,158), weighted

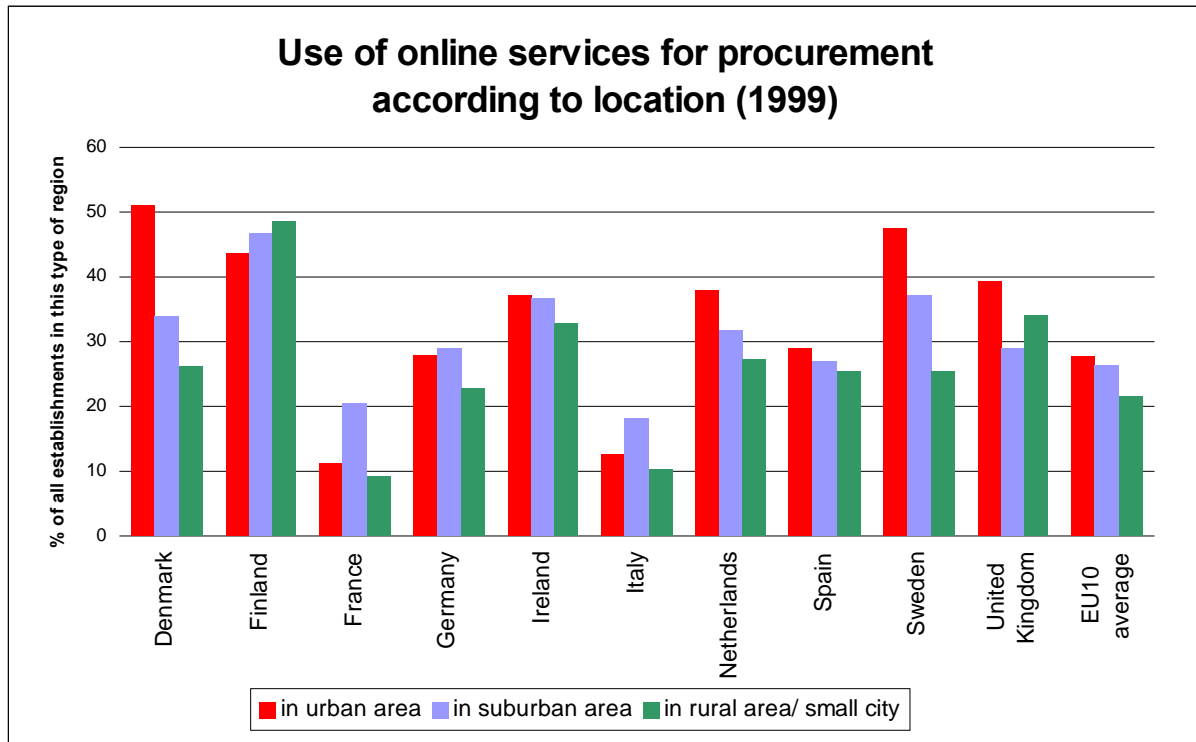


*c) Differentiation by establishment location*

**TABLE 73: USE OF ONLINE SERVICES FOR PROCUREMENT BY ESTABLISHMENT LOCATION (IN %)**

	in large cities		in suburban area		in rural area or small city	
	users 1999	new users 1999-2001	users 1999	new users 1999-2001	users 1999	new users 1999-2001
<b>Denmark</b>	51.1	10.5	33.9	14.0	26.2	15.2
<b>Finland</b>	43.7	7.6	46.7	20.9	48.4	12.9
<b>France</b>	11.4	22.7	20.5	26.4	9.3	23.5
<b>Germany</b>	28.0	15.0	29.0	23.6	22.7	22.2
<b>Ireland</b>	37.3	20.1	36.7	19.9	32.7	21.3
<b>Italy</b>	12.5	13.5	18.2	16.9	10.3	20.6
<b>Netherlands</b>	38.0	7.6	31.7	9.8	27.2	9.6
<b>Spain</b>	29.1	16.1	27.0	9.3	25.4	16.9
<b>Sweden</b>	47.4	12.4	37.1	10.4	25.3	23.2
<b>U.K.</b>	39.2	12.2	29.1	18.0	34.0	13.8
<b>EUR10</b>	27.6	14.9	26.4	18.6	21.6	19.2

Base: All establishments (n = 4,158), weighted



#### 2.4.2 Barriers to use of the Internet for procurement

Establishments which neither use online services for purchasing nor plan to do so over the next 2 years were asked for their most important reasons for this decision. More than half of those questioned reacted indiscriminately negative: They maintain not to see any benefits in procurement via online media. As with the barriers to online selling, actual barriers to use are in particular certain characteristics of goods or services purchased which, according to the opinion of those questioned, make them unsuitable for online purchase. Here again these statements can be explained by a limited understanding of the potential of the Internet.

A lack of availability of goods is given as a further barrier, ie the familiar suppliers do not yet, or only in an unsuitable way, make their goods available online, or the online market for those products is generally not sufficiently developed or not transparent enough.

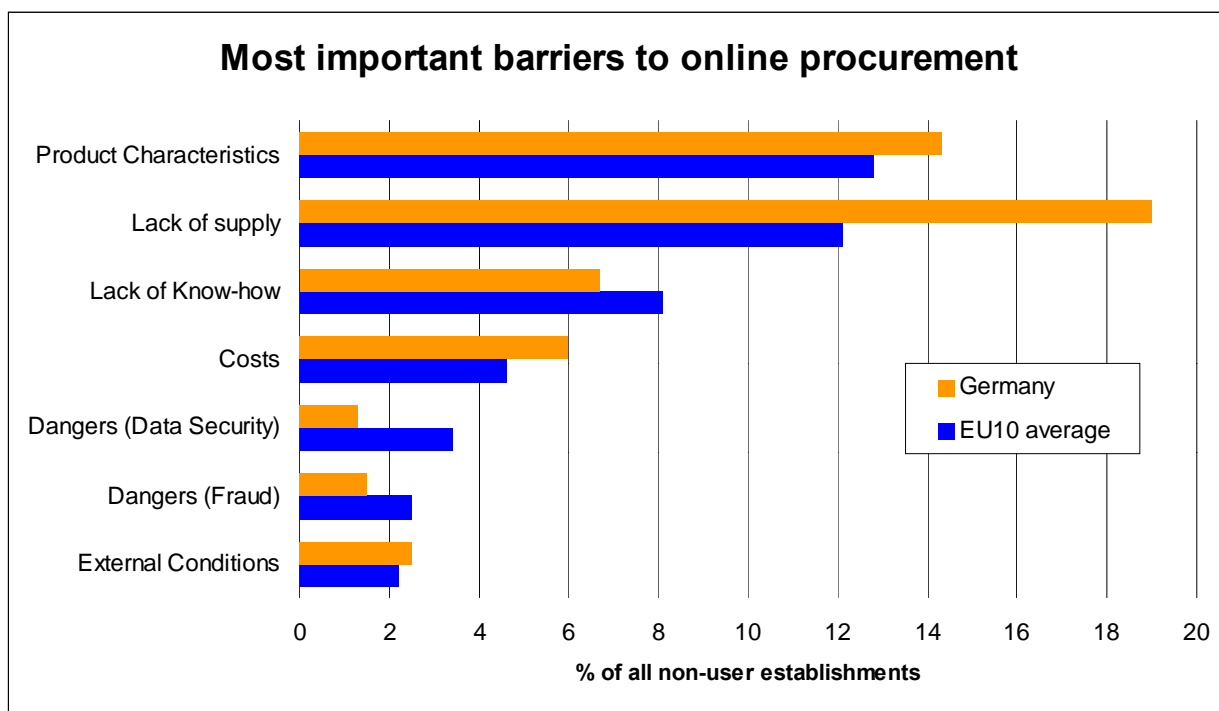


TABLE 74: MOST IMPORTANT BARRIERS TO ONLINE PROCUREMENT (IN %)

	Lack of supply	Costs	Lack of know-how	Danger (data security)	Danger (fraud)	Product characteristics	External conditions	Other reasons
<b>Denmark</b>	18.4	3.0	10.9	0.0	0.0	0.2	0.0	1.0
<b>Finland</b>	14.7	1.6	0.4	2.8	2.8	9.2	0.2	2.9
<b>France</b>	9.3	7.6	13.3	5.2	6.4	10.6	3.4	1.8
<b>Germany</b>	19.0	6.0	6.7	1.3	1.5	14.3	2.5	0.6
<b>Ireland</b>	12.0	3.3	4.3	6.9	0.2	5.6	0.1	12.1
<b>Italy</b>	10.4	2.1	4.5	1.7	1.1	9.0	0.4	0.0
<b>Netherlands</b>	5.6	2.8	5.6	4.5	1.1	26.0	4.5	18.6
<b>Spain</b>	9.0	1.0	9.5	2.6	0.9	24.1	3.7	10.4
<b>Sweden</b>	6.0	1.1	7.6	2.3	1.3	14.5	3.3	0.8
<b>U.K.</b>	10.8	5.3	9.0	6.9	3.1	8.3	1.0	3.2
<b>EUR10</b>	12.1	4.6	8.1	3.4	2.5	12.8	2.2	3.2

Base: Establishments that neither practise nor plan online procurement (n = 2.282), weighted

## 2.5 Types of use of Electronic Commerce

Each establishment can be assigned to a certain developmental stage relating to its use of Electronic Commerce. Apart from the non-user category "offline" we distinguish between 5 stages. These relate to different degrees of integration of Electronic Commerce into the production process. Initially most establishments use the Internet only as an information medium, ie in a passive way, and contact others interactively at best by e-mail (stage 1). This basic stage is followed by the active utilisation of the Internet as an additional means for marketing (stage 2). Today many establishments are only present on the Internet because a proprietary website is regarded as expected, just like a business card or an entry in Yellow Pages, and not because this decision is led by an explicit marketing concept.

TABLE 75: E-COMMERCE DEVELOPMENT MODEL

Stage	Title	Characteristics
(0)	"offline"	no use of e-mail and Internet and other online services
(1)	"basic online"	use of e-mail and/or Internet and/or an other online service
(2)	"web marketing"	information offer on the Internet or an other online service
(3)	"online distribution"	interactive website with online sales
(4)	"B-to-B online integration"	data exchange with supply chain partners (suppliers, customers, business partners) via the Internet or an other online service; maybe joint business processes
(5)	"allround-users"	(3) as well as (4)

For further development basically 2 different options can be given (see figure below). While some establishments allow for online ordering of products and to a degree even transmit information to clients against payment on the Internet (stage 3), others concentrate on the optimisation of their supply chain by exchanging data electronically or even integrating business processes with their suppliers and business clients (stage 4). While the first option is generally chosen to approach new clients, ie to increase or defend market shares, online integration of establishments along the supply chain aims at efficiency gains and rationalisation effects.

Finally, establishments which apply online services in the business-to-business field as well as for the sale of products belong to the final stage in this simple development model. It goes without saying that there are also establishments which straight away start as web based organisations and therefore immediately reach stage 5 with their founding. However, in the economy as a whole they play only a very small role, especially in relation to their share of total employment.

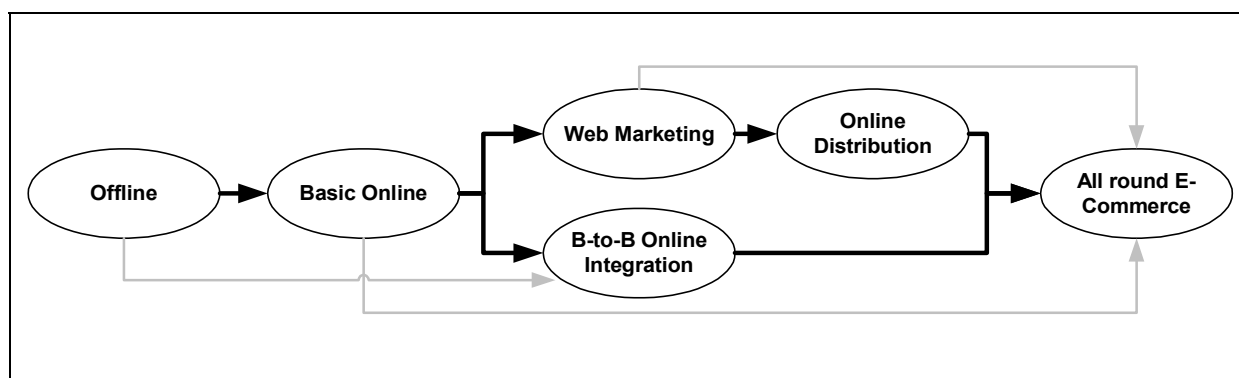


FIGURE 1: E-COMMERCE DEVELOPMENT MODEL

What does the diffusion of the different types of E-Commerce look like in Germany and the other European countries? More than a quarter of EUR10 establishments are still offline and have therefore not yet climbed to the first E-Commerce-development stage. In Germany this share is even a little above average. A third of EUR10 establishments can be described as “basic online users”. The proportion of those establishments which use the Internet solely for marketing purposes is 14% (16% in Germany).

The proportion of establishments which use online services as a distribution channel, but do not use the Internet or other online services for data exchange with suppliers and business clients is low in all countries and averages around 4%. Pure business-to-business users however are much more frequent: 14%. Finally 8% of all establishments use E-Commerce for sales as well as for the optimisation of their supply chain, ie represent the European E-Commerce elite. In Finland, the leading country, this figure even reaches 25%; in Italy, at the bottom of the range only 4% of all establishments fall into this category.

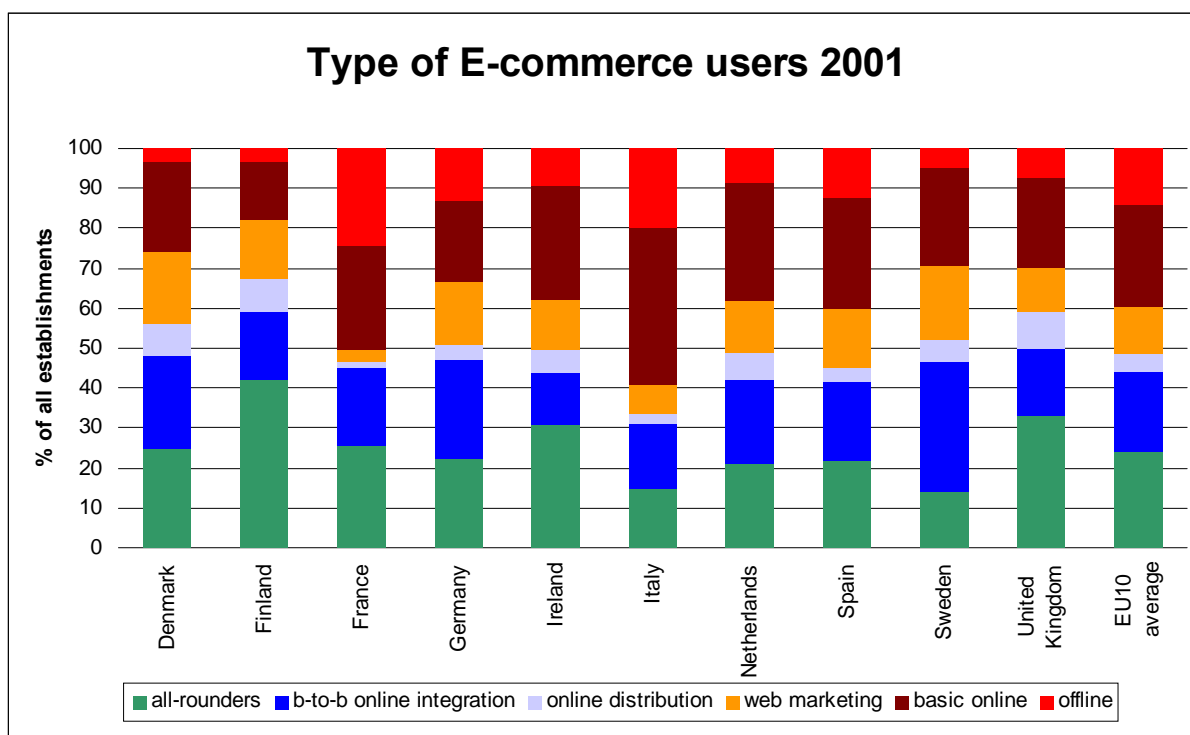
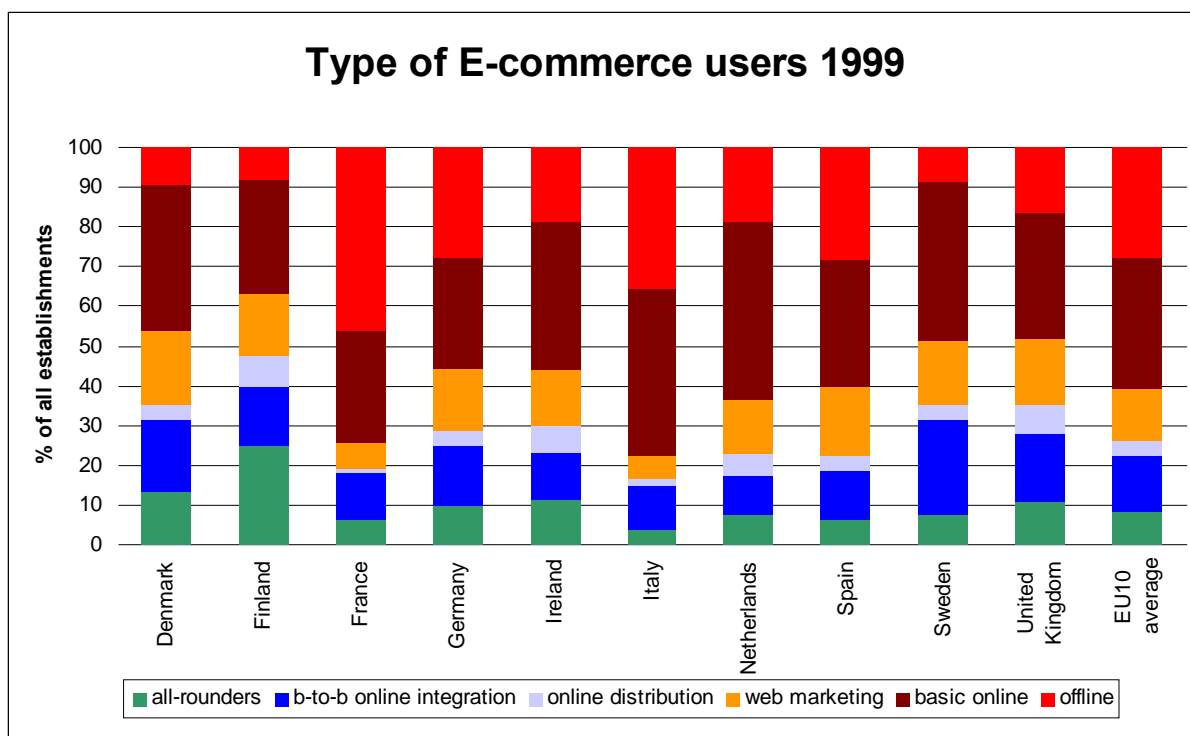
TABLE 76: TYPES OF ELECTRONIC COMMERCE USE (IN %)

	All-round users		B-to-B online-Integration		Online Distribu-tion		Web Marketing"		Basic online		Offline	
	1999	2001	1999	2001	1999	2001	1999	2001	1999	2001	1999	2001
<b>Denmark</b>	13.3	24.8	18.1	23.0	3.9	8.5	18.6	17.7	36.6	22.9	9.4	3.1
<b>Finland</b>	24.8	42.3	15.0	16.6	8.0	8.3	15.4	14.9	28.7	14.8	8.2	3.2
<b>France</b>	6.2	25.5	12.0	19.4	0.7	1.7	7.0	3.1	28.2	26.1	46.0	24.1
<b>Germany</b>	9.9	22.3	14.9	24.7	3.7	3.7	16.0	15.9	27.8	20.1	27.8	13.3
<b>Ireland</b>	11.0	30.9	12.1	12.7	6.7	5.9	14.1	12.6	37.6	28.3	18.4	9.7
<b>Italy</b>	3.9	14.9	11.1	16.0	1.5	2.5	5.8	7.7	42.0	39.0	35.7	19.9
<b>Netherlands</b>	7.3	21.0	10.3	21.3	5.3	6.3	13.7	13.3	44.7	29.3	18.7	8.7
<b>Spain</b>	6.3	21.9	12.5	19.9	3.4	3.3	17.8	14.7	31.6	27.8	28.3	12.5
<b>Sweden</b>	7.6	13.9	23.9	32.8	3.6	5.4	16.5	18.6	39.8	24.3	8.4	4.9
<b>U.K:</b>	10.9	33.1	17.1	17.0	7.1	8.9	16.7	11.4	31.5	22.0	16.6	7.5
<b>EUR10</b>	8.4	23.9	14.1	20.3	3.7	4.6	13.2	11.5	32.6	25.7	28.0	14.0

Base: All establishments (n = 4,158), weighted

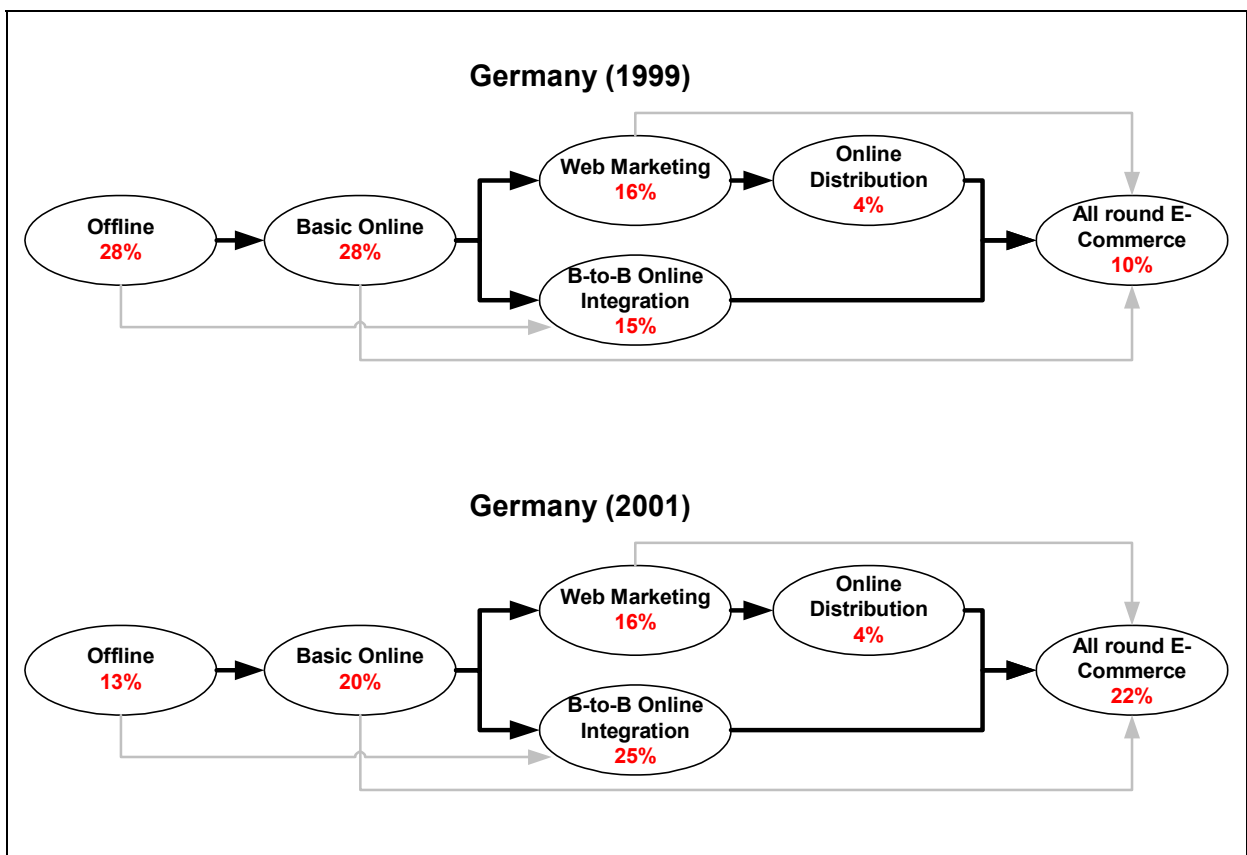
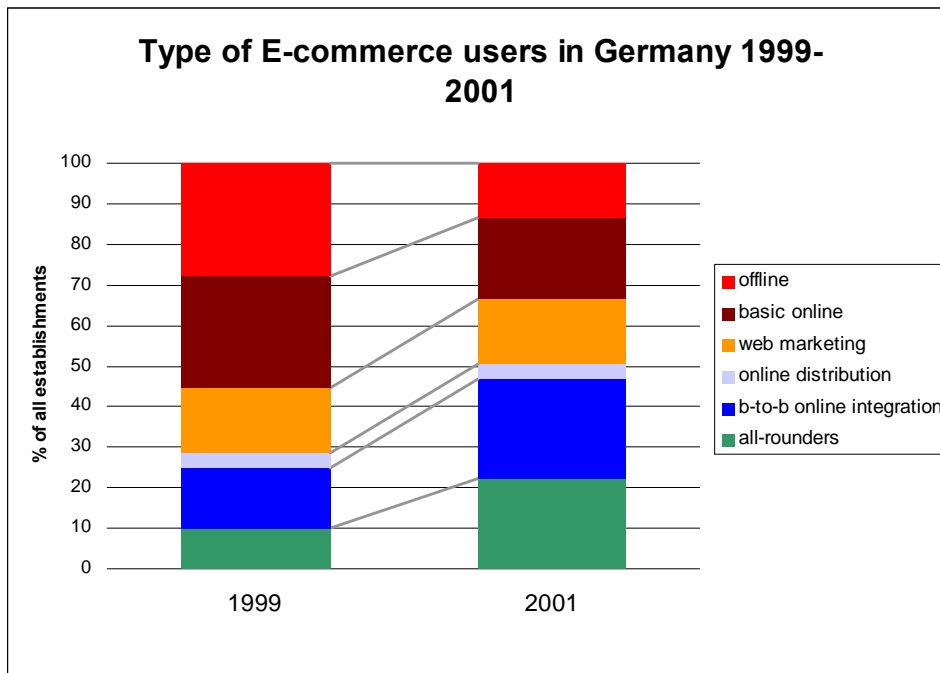
By 2001, a considerable proportion of establishments will have reached a higher development stage so that an average 24% of the total sample can be classified as “all-round E-

Commerce users". At the same time only 14% will still be offline and only 26% will be basic online users.



Germany together with Sweden differ from the other countries in their high proportion of establishments which even by 2001 will apply online services exclusively in the business-to-business field. Establishments from these countries obviously use the Internet more than in

the other countries to achieve rationalisation and efficiency gains in collaboration with other organisations in the supply chain (forward and backward linkages) and less so to sell to consumers.



### 3 Projection until 2003

In order to obtain clues from the present study as to how the diffusion of Internet usage will significantly develop, a projection for the year 2003 was made. The data from 1999 (current practice) as well as that projected for 2001 (anticipated practice in 2 years based on actual planning in organisations) was used as a Base: All establishments (n = 4.158). For the calculation it was assumed that further diffusion in those countries lagging behind would proceed in the same way as previously in the leading countries, ie each diffusion stage (degree of spread) being matched to a rate of growth which in the model would be independent from country specific characteristics.

The correlation between growth rate and current degree of spread was determined through non-linear regression and was checked for statistical significance using the critical value. The test demonstrated that the hypothesis that growth rate is strongly dependent on the current diffusion stage (independent from any specific country) can be maintained. In the next step the linear regression was used for the projection of diffusion figures for 2003.

On the basis of this model it is predicted that the proportion of online shoppers and online bankers in the total population will increase over the next 4 years from the currently modest 14% and 8% in Germany to more than half and almost 40% respectively, an unprecedented growth which will shake up many sectors of the economy and public life.

TABLE 77: PROJECTION OF SIGNIFICANT DIFFUSION FIGURES UNTIL 2003 (IN % , GERMANY)

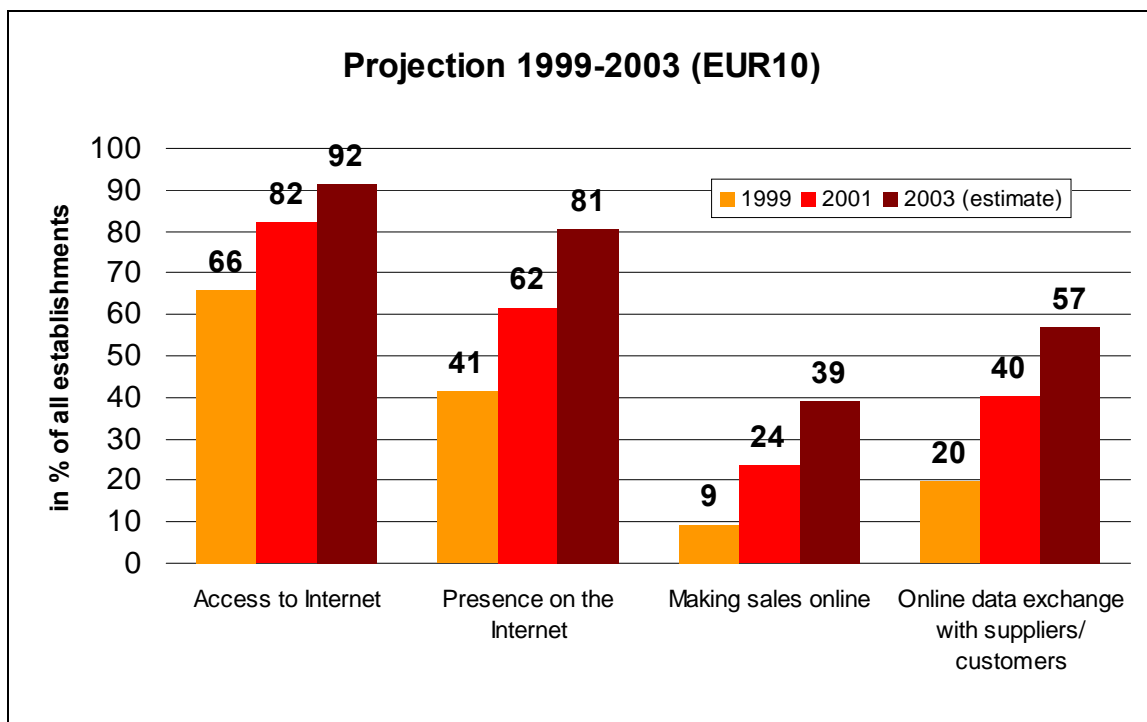
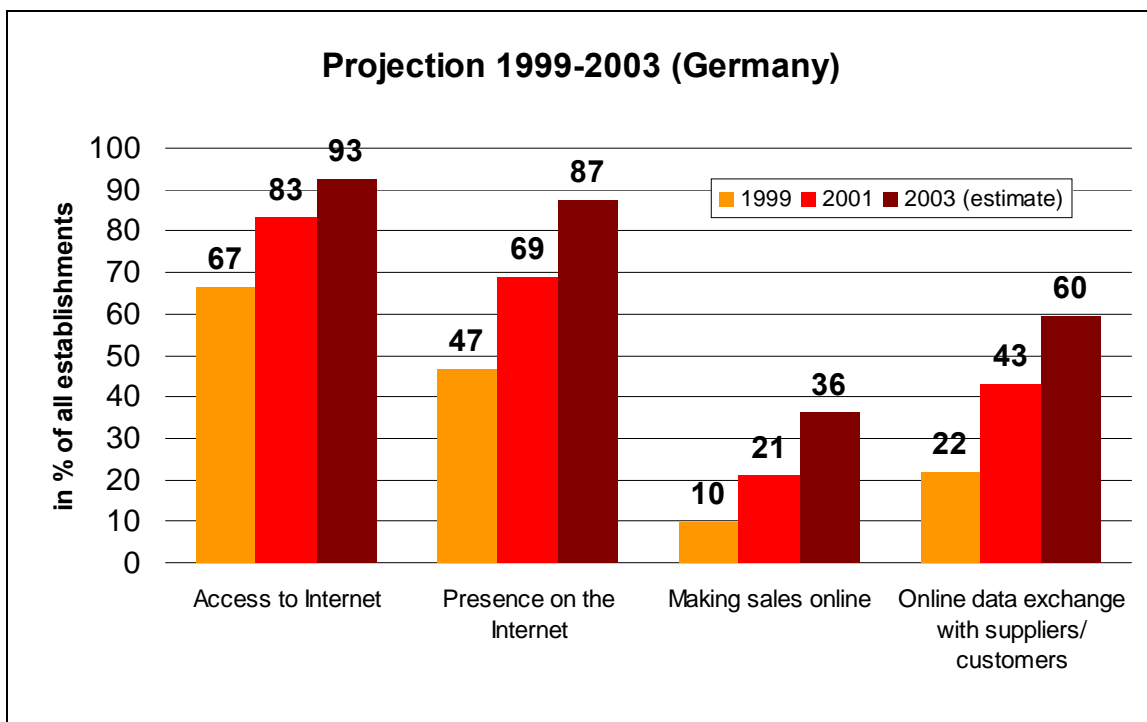
	1999	2001	2003 (estimate)
Access to the Internet	66.6	83.4	92.5
Presence on the Internet	46.8	68.7	87.4
Making sales online	9.8	21.0	36.3
Online data exchange with suppliers/ customers	21.6	43.1	59.6

Base: All establishments (n = 4,158), weighted

TABLE 78: PROJECTION OF SIGNIFICANT DIFFUSION FIGURES UNTIL 2003 (IN % , EUR10)

	1999	2001	2003 (estimate)
Access to the Internet	66.0	82.2	91.6
Presence on the Internet	41.4	61.8	80.7
Making sales online	9.3	23.7	39.3
Online data exchange with suppliers/ customers	19.9	40.4	57.1

Base: All establishments (n = 4,158), weighted



## 4 Survey Methodology

This survey was based on a random sample of establishments in Denmark, Finland, France, Germany, Netherlands, Ireland, Italy, Spain, Sweden and the United Kingdom, stratified by establishment size (number of employees) and industry. Quotas of establishments weighted by size were set to ensure the results are not dominated by small units but properly reflect the situation of workers in larger enterprises. The fieldwork took place in April and May 1999. The samples were either drawn from special establishment master samples maintained by the survey institutes or from other available frames, as follows:

**TABLE 79: SAMPLE FRAMES USED FOR ECATT**

<b>Denmark</b>	Kobmansstandens erhvervsoplysning (data base of all establishments in Denmark)
<b>Germany</b>	Startel establishment directory
<b>Finland</b>	INSEE (the national office of statistics)
<b>France</b>	The Infratest Burke Arbeitsstätten-Mastersample (establishment master sample), which contains approx. 150,000 addresses from workplaces (and almost every workplace in Germany with more than 100 employees)
<b>Ireland</b>	Dun & Bradstreet and Yellow Pages
<b>Italy</b>	Yellow Pages
<b>Netherlands</b>	Chamber of Commerce data base
<b>Sweden</b>	Chamber of Commerce
<b>Spain</b>	SCB
<b>United Kingdom</b>	Business Database

The survey was carried out by Infratest Burke using computer-aided telephone interviewing. 500 decision makers are to be interviewed in the larger countries, 300 in the smaller ones. The respondents were chosen to be the head of the DP department, senior professionals in the DP department (in large organisations) or the managing director, general manager or proprietor (in small organisations). The questions were worded to elicit working practice in the respondent's own establishment, rather than in his company overall. This method decision was based on the assessment that, particularly in large multi-site organisations, there would be no single respondent able to give reliable detailed information about working practice across the whole company.

**TABLE 80: SAMPLE COMPOSITION**

	<b>target</b>	<b>actual size</b>
<b>Denmark</b>	300	361
<b>Germany</b>	300	308
<b>Finland</b>	500	501
<b>France</b>	500	501
<b>Ireland</b>	300	374
<b>Italy</b>	500	506
<b>Netherlands</b>	300	300
<b>Sweden</b>	500	500
<b>Spain</b>	300	306
<b>United Kingdom</b>	500	501
<b>Total sample</b>	4,000	4,158

## 5 Questionnaire DMS

QA                    **ALL**

Interviewer: Code respondent's position in establishment (ask to confirm if necessary)

- (1) Owner/Proprieter
- (2) Managing Director/Board Member
- (3) Head of Establishment/Site
- (4) Head of IT/DP
- (5) Other member of IT/DP Department

Q1                    **ALL**

Which industry does your organisation belong to? (READ OUT AND CODE FIRST TO APPLY)

- (1) agriculture
- (2) mining, energy
- (3) manufacturing
- (4) construction
- (5) distribution
- (6) hotels, restaurants
- (7) transport, communication
- (8) banking, insurance
- (9) business services
- (10) public administration
- (11) education
- (12) health and social work
- (13) other personnel or social services
- (99) na

Q2A                    **ALL**

Does your organisation have only one site, or has it more than one establishment?

- (1) only one site
- (2) more than one establishment
- (8) don't know
- (9) na

**Q2B IF Q2A = (2)**  
 How many employees does your organisation have in total in this country?  
 [NOTE TO TRANSLATORS: employee means those with a work contract]

(888) don't know

(999) na

**Q2C IF Q2A = (2)**  
**From now on, we would like you to consider only this establishment when answering questions about your organisation.**  
 How many employees and how many freelancers work for your organisation **at this establishment?** [INTERVIEWER: ADD IF ONLY ONE NUMBER IS GIVEN: And how many of these are freelancers or self-employed, i.e. do not have a contract of employment?]

a) employees  (888) don't know (999) na

b) freelancers/ self-employed  (888) don't know (999) na

**Q2D IF Q2A IS NOT (2)**  
 How many employees and how many freelancers work for your establishment? [INTERVIEWER: ADD IF ONLY ONE NUMBER IS GIVEN: And how many of these are freelancers or self-employed, i.e. do not have a contract of employment?]

a) employees  (888) don't know (999) na

b) freelancers/ self-employed  (888) don't know (999) na

**Q3 ALL**  
 Would you say your establishment site is in a large city, in a suburb or near a large city, or in a mainly rural area?  
 [INTERVIEWER: IF INTERVIEWEE IS UNSURE, ADD: A "large city" is one with **more than 100 thousand inhabitants**]

(1) in large city

(2) suburb / near large city (including medium and small cities that are adjacent to a large city)

(3) mainly rural area (including medium and small cities that are not adjacent to a large city)

(8) don't know

(9) na

Q4            **ALL**  
Does your establishment use e-mail?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q5            **WENN Q4 = (2) or (8) or (9)**  
Are there concrete plans to introduce it in the next one to two years?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q6            **AN ALLE**  
Does your establishment have access to the Internet?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q7            **WENN Q6 = (2) or (8) or (9)**  
... and what about the next one to two years?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q8 **AN ALLE**  
Does your establishment have an **Intranet**?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q9 **WENN Q8 = (2) or (8) or (9)**  
... and what about the next one to two years?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q10 **AN ALLE**  
Does your establishment use video-conferencing?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q11 **IF Q10 = (2) or (8) or (9)**  
... and what about the next one to two years?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q12

**AN ALLE**

Does your establishment use other groupware tools like Microsoft Outlook or Lotus Notes?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q13

**IF Q12 = (2) or (8) or (9)**

... and what about the next one to two years?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q14

**AN ALLE**

Does your establishment use electronic data interchange (EDI)?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q15

**IF Q14 = (2) or (8) or (9)**

... and what about the next one to two years?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q16

**AN ALLE**

Does your establishment use a call center, i.e. a unit whose sole purpose is telephone marketing and telephone customer services?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q17

**IF Q16 = (2) or (8) or (9)**

... and what about the next one to two years?

- (1) yes
- (2) no
- (8) don't know
- (9) na

Q18

What applications can be accessed **by the majority** of your office workers? Can the majority of your office workers ...

a	<b>IF Q4 = (1) or (8) or (9)</b> send E-mails to <b>internal</b> addresses	(1) yes (2) no (3) don't know (9) na
b	<b>IF Q4 = (1) or (8) or (9)</b> send E-mails to <b>external</b> addresses	(1) yes (2) no (3) don't know (9) na
c	<b>IF Q6 = (1) or (8) or (9)</b> browse <b>Internet</b> sites	(1) yes (2) no (3) don't know (9) na
d	<b>IF Q8 = (1) or (8) or (9)</b> browse <b>Intranet</b> sites	(1) yes (2) no (3) don't know (9) na
e	<b>IF Q10 = (1) or (8) or (9)</b> communicate via video conferencing	(1) yes (2) no (3) don't know (9) na

Q38

**ALL**

Does your organisation offer information on the Internet or another online service like ....<sup>4</sup>?

- (1) yes
- (2) no
- (8) don't know
- (9) no answer

<sup>4</sup> NOTE TO TRANSLATOR: LIST NATIONAL ALTERNATIVE ONLINE SERVICE(S). BE CAREFUL TO FIND THE RIGHT TRANSLATION FOR "PAGES", I.E. INFORMATION OFFER SIMILAR TO WEBSITES, BUT IN ALTERNATIVE ONLINE SERVICE SYSTEMS.

Q39

**IF Q38 = (2) or (8) or (9)**

Are there any concrete plans to do so in the next 1 to 2 years?

(1) yes

(2) no

(8) don't know

(9) no answer

Q40

**IF Q38 = (1)**

What kind of presence do you have on the Internet or in an other online service? Do you have ...

a	a website with own URL or own pages in ... <sup>5</sup>	(1) yes	(2) no	(8) dk	(9) na
b	a presence in an electronic shopping mall together with other suppliers	(1) yes	(2) no	(8) dk	(9) na
c	an entrance in electronic "yellow pages" or other trade directory	(1) yes	(2) no	(8) dk	(9) na
d	some other kind of presence, please specify: .....	(1) yes	(2) no	(8) dk	(9) na

---

<sup>5</sup> NOTE TO TRANSLATOR: LIST NATIONAL ALTERNATIVE ONLINE SERVICE(S)

Q41

**IF Q38 = (1)**

What is the purpose of these activities? Do you use your online presence for ...

Q42

**IF Q41a-f = (2)** Are there concrete plans to use it for this in the next 1 to 2 years?

	<b>Q41</b> use currently	<b>Q42</b> in 1-2 years
a advertising and marketing purposes	(1) yes (2) no (8) dk (9) na	(1) yes (2) no (8) dk (9) na
b offering information free to the user	(1) yes (2) no (8) dk (9) na	(1) yes (2) no (8) dk (9) na
c distribution of information with charge to the user	(1) yes (2) no (8) dk (9) na	(1) yes (2) no (8) dk (9) na
d making sales online	(1) yes (2) no (8) dk (9) na	(1) yes (2) no (8) dk (9) na
e data exchange with suppliers and customers	(1) yes (2) no (8) dk (9) na	(1) yes (2) no (8) dk (9) na
f joint business processes with suppliers or cooperation partners	(1) yes (2) no (8) dk (9) na	(1) yes (2) no (8) dk (9) na

Q43

**IF Q39 = (1)**

For what purposes? For ...

- |  |                              |
|--|------------------------------|
| a advertising and marketing purposes?                              | (1) yes (2) no (8) dk (9) na |
| b offering information free to the user?                           | (1) yes (2) no (8) dk (9) na |
| c distribution of information with charge to the user?             | (1) yes (2) no (8) dk (9) na |
| d making sales online?   | (1) yes (2) no (8) dk (9) na |
| e data exchange with suppliers and customers?                      | (1) yes (2) no (8) dk (9) na |
| f joint business processes with suppliers or cooperation partners? | (1) yes (2) no (8) dk (9) na |

Q44 **IF NOT Q41c = (1) And NOT Q41d = (1) And NOT Q42c = (1) And NOT Q42d = (1) And NOT Q43c = (1) And NOT Q43d = (1)**

Lately there is a lot of talk about **online shopping**, i.e. the **sale** of products via online services. What are your main reasons for not offering online shopping to your customers? (DO NOT READ)

- (1) **Demand** - no demand from actual and potential customers for e-shopping
- (2) **Need** - sees no need/ use/ reason for it, does not want to change current behaviour
- (3) **Cost** - expensive to implement, return on investment not high enough
- (4) **Know-how** - technology is difficult to implement, lack of know-how, lack of understanding
- (5) **Dangers** related to **data security**, unwanted disclosure of confidential information
- (6) **Dangers** related to **fraud** or other unintended loss of money, security of intellectual property rights
- (7) **Product characteristics**, products are not feasible for online sales, e.g. product needs to be touched or tried on to be sold, personal services that require presence of the consumer
- (8) **External conditions** - no clarity about legal and political conditions, insecurity about future developments
- (9) **Other**, please specify: \_\_\_\_\_
- (88) don't know
- (99) na

Q45 **ALL**  
Do you use the Internet or other online services for procurement purposes, i.e. to **purchase** goods or services?

- (1) yes
- (2) no
- (8) don't know
- (9) no answer

Q46 **IF Q45 = (2)**  
Are there concrete plans in your establishment to start using online services for procurement purposes in the next 1 to 2 years?

- (1) yes
- (2) no
- (8) don't know
- (9) no answer

Q47

IF **NOT** Q45 = (1) And **NOT** Q46 = (1)

What are the main reasons why you do not use online services for procurement purposes (DO NOT READ)?

- (1) **Supply** - procurement partners do not offer online transactions, not enough products available online, no compatibility of computer systems
- (2) **Need** - sees no need/ use/ reason for it, does not want to change current behaviour
- (3) **Costs / Returns** - expensive to implement, return on investment not high enough
- (4) **Know-how** - lack of know-how, technology is difficult to implement, lack of understanding
- (5) **Dangers** related to **data security**, unwanted disclosure of confidential information
- (6) **Dangers** related to **fraud** or other unintended loss of money, security of intellectual property rights
- (7) **Product characteristics**, products are not feasible for online purchases, e.g. procured goods need to be touched or otherwise examined before purchasing, "it wouldn't work"
- (8) **External conditions** - no clarity about legal and political conditions, insecurity about future developments
- (88) don't know